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## SEARCH REQUEST FORM

### Scientific and Technical Information Center

Requester's Full Name: Jennifer Kim Examiner #: 177469 Date: 10/4/02  
Art Unit: 1617 Phone Number 30 8-2232 Serial Number: 10/044531  
Mail Box and Bldg/Room Location: 2819 Results Format Preferred (circle):  PAPER  DISK  E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Use of central cannabinoid receptors antagonists in the preparation of drugs  
Inventors (please provide full names): Jeanne Masuani, Philippe Soubrie

Earliest Priority Filing Date: 1/28/98

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

- 1) Please provide therapeutic uses of formula (II).
- 2) Please provide registry # of active agent in claim 22.
- 3) Please provide therapeutic uses of formula III in claim 23 and other formula IV in claim 24 + formula V.
- 4) Please provide registry # + therapeutic use of other active agent in claim 26.

THX,  
Jennifer

\* P.S. Please separate each search. (i.e. number them  
1 - 4 as requested.) THX,  
Jennifer.

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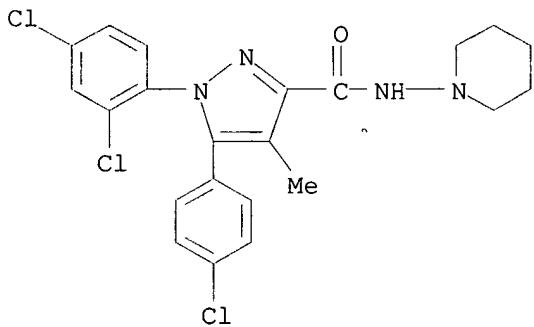
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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d ide can 111

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS  
RN 168273-06-1 REGISTRY  
CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Rimonabant  
CN SR 141716  
FS 3D CONCORD  
MF C22 H21 Cl13 N4 O  
CI COM  
SR CA  
LC STN Files: ADISINSIGHT, BIOSIS, CA, CAPLUS, CASREACT, CIN, DRUGNL, DRUGPAT, DRUGUPDATES, PROMT, TOXCENTER, USPATFULL



Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
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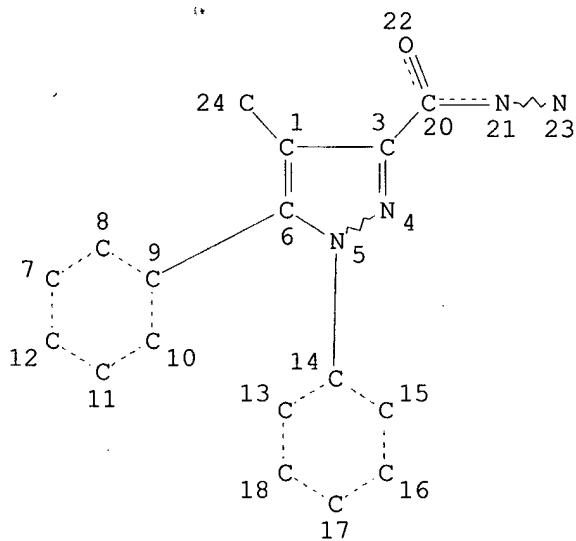
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

58 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
58 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:150071

REFERENCE 2: 137:119520  
 REFERENCE 3: 137:103401  
 REFERENCE 4: 137:98994  
 REFERENCE 5: 137:20325  
 REFERENCE 6: 137:580  
 REFERENCE 7: 136:395817  
 REFERENCE 8: 136:350113  
 REFERENCE 9: 136:304109  
 REFERENCE 10: 136:274665

=> d sta que 116  
 L15 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 23  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L16 103 SEA FILE=REGISTRY SSS FUL L15

100.0% PROCESSED 337 ITERATIONS  
 SEARCH TIME: 00.00.01

103 ANSWERS

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E MARUANI J/AU

L1 152 S E3-E5  
E SOUBRIE P/AU  
L2 215 S E3-E8  
E SANOFI/PA,CS  
L3 1921 S E2,E3,E4  
L4 1921 S SANOFI?/PA,CS  
E SYNTHELABO/PA,CS  
L5 2057 S SYNTHELAB?/PA,CS  
L6 97 S L1,L2 AND L3-L5  
E FR97-870/PA,CS  
E FR97-870/AP,PRN  
L7 1 S E3,E4  
E WO98-FR154/AP,PRN  
L8 1 S E3,E4  
E US6344474/PN  
L9 1 S E3  
L10 1 S L1-L6 AND L7-L9  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:15:36 ON 13 OCT 2002

L11 1 S E1  
L12 7 S 168273-06-1/CRN  
L13 STR  
L14 5 S L13  
L15 STR L13  
L16 103 S L15 FUL  
SAV L16 JKIM44531/A  
L17 95 S L16 NOT L11,L12

FILE 'HCAOLD' ENTERED AT 09:20:53 ON 13 OCT 2002

L18 0 S L11 OR L12 OR L17

FILE 'HCAPLUS' ENTERED AT 09:20:59 ON 13 OCT 2002

L19 226 S L11 OR L12  
L20 119 S RIMONABANT OR SR141716 OR SR()(141716 OR 141 716)  
L21 608 S SR141716# OR SR()(141716# OR 141 716#)  
L22 618 S L19-L21  
L23 25 S L17  
L24 622 S L22,L23  
L25 58 S L11  
L26 119 S SR141716 OR SR()(141716 OR 141 716)  
L27 130 S L25,L26  
L28 492 S L24 NOT L27  
L29 362 S L1,L2 NOT L10

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SET SMARTSELECT OFF

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L33 7 S E3 AND (46.150.18 AND 591.49.51)/RID  
L34 1 S L33 AND 2S  
L35 1 S L33 AND 2R

L36 1 S L34 AND L35  
           SEL RN  
 L37 1 S E1/CRN  
 L38 1 S L32,L37  
 L39 7 S L32-L37 NOT L38  
           SEL RN  
 L40 7 S E3-E8/CRN NOT L38  
 L41 2 S L36,L38  
 L42 13 S L33,L40 NOT L41

FILE 'HCAPLUS' ENTERED AT 09:31:30 ON 13 OCT 2002

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 L44 70 S SR58611 OR SR58611A OR SR()(58611 OR 58611A OR 58 611 OR 58 6  
 L45 78 S L43,L44  
 L46 10 S L42  
 L47 82 S L45,L46  
 L48 44 S L27 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L49 164 S L28 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L50 0 S L48 AND L49  
 L51 170 S L12  
 L52 6 S L28,L51 AND L27  
 L53 4 S L52 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L54 80 S L51 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L55 44 S L48,L53  
 L56 44 S L55 AND L1-L10,L19-L29,L48-L55  
 L57 46 S L11(L)(THU OR BAC)/RL  
 L58 146 S (L12 OR L17)(L)(THU OR BAC)/RL  
 L59 24 S L56 AND L57,L58  
 L60 4 S L55 AND 63/SC  
 L61 0 S L55 AND 63/SX  
 L62 36 S L55 AND 1/SC,SX  
 L63 24 S L59,L60  
 L64 16 S L62 NOT L63  
       SEL DN AN 7  
 L65 1 S E9-E11 AND L64  
 L66 25 S L63,L65 AND L1-L10,L19-L29,L48-L65

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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16  
 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

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L66 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1999:38046 HCAPLUS  
 DN 130:218189  
 TI Modulation of CB1 cannabinoid receptor functions after a long-term exposure to agonist or inverse agonist in the Chinese hamster ovary cell expression system  
 AU Rinaldi-Carmona, Murielle; Le Duigou, Anne; Oustric, Didier; Barth, Francis; Bouaboula, Monsif; Carayon, Pierre; Casellas, Pierre; Le Fur, Gerard  
 CS Sanofi Recherche, Montpellier, 34184, Fr.  
 SO Journal of Pharmacology and Experimental Therapeutics (1998), 287(3), 1038-1047  
 CODEN: JPETAB; ISSN: 0022-3565  
 PB American Society for Pharmacology and Experimental Therapeutics  
 DT Journal  
 LA English  
 AB We have investigated the adaptive changes of the human central cannabinoid receptor (CB1) stably expressed in Chinese hamster ovary cells (CHO-CB1), after agonist (CP 55,940) or selective CB1 inverse agonist (**SR 141716**) treatment. CB1 receptor d. and affinity const. as measured by binding assays with both tritiated ligands remained essentially unchanged after varying period exposure of CHO-CB1 cells (from 30 min to 72 h) to satg. concns. of CP 55,940 or **SR 141716**. However, using a C-myc-tagged version of the CB1 receptor, FACS anal. and confocal microscopy studies on CB1 expression indicated that the agonist promoted a disappearance of cell surface receptor although inverse agonist increased its cell surface d. Taken together these results suggest that (1) agonist induces internalization of the receptor into a cellular compartment that would be still accessible to both the hydrophobic ligands CP 55,940 or **SR 141716**; (2) inverse-agonist promotes externalization of the receptor from an intracellular preexisting pool to the cell surface. In parallel, we also investigated the assocd. effects of CP 55,940 and **SR 141716** on CB1 receptor-coupled second messengers. We showed that pre-exposure of cells to CP 55,940 induced a rapid desensitization of the CB1 to the agonist response. The ability of CP 55,940 to inhibit the forskolin-stimulated adenylyl cyclase and to activate the mitogen-activated protein kinase activity was dramatically reduced. By striking contrast, **SR 141716** pretreatment of CHO-CB1 cells not only had no significant effect on the potency of CP 55,940 to inhibit the forskolin-stimulated adenylyl cyclase but also induced a significant enhancement of the CP 55,940 ability to stimulate the mitogen-activated protein kinase activity. These results suggest that the modulation of the no. of cell surface receptor could lead to functional desensitization or sensitization of the CB1 receptors.  
 IT 168273-06-1, **SR 141716**  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (inverse agonist; modulation of CB1 cannabinoid receptor functions after a long-term exposure to agonist or inverse agonist in the Chinese hamster ovary cell expression system)

RETABLE

Referenced Author	Year	VOL	PG	Referenced Work	Referenced File
(RAU)	(R PY)	(R VL)	(R PG)	(R WK)	
Anderson, N	1990	1343	1651	Nature	HCAPLUS

Attramadal, H	1992 267	17882 J Biol Chem	HCAPLUS
Barker, E	1994 269	11687 J Biol Chem	HCAPLUS
Barker, E	1993 44	725 Mol Pharmacol	HCAPLUS
Benovic, J	1990 30	3S Br J Pharmacol	HCAPLUS
Blaukat, A	1996 271	32366 J Biol Chem	HCAPLUS
Bouaboula, M	1995 312	637 Biochem J	HCAPLUS
Bouaboula, M	1996 237	704 Eur J Biochem	HCAPLUS
Bouaboula, M	1993 214	173 Eur J Biol Chem	HCAPLUS
Bouaboula, M	1995 270	13973 J Biol Chem	HCAPLUS
Bouaboula, M	1997 272	22330 J Biol Chem	HCAPLUS
Chun, M	1994 91	11728 Proc Natl Acad Sci U	HCAPLUS
Creese, I	1981 21	357 Annu Rev Pharm Tox	HCAPLUS
Derocq, J	1995 369	177 FEBS Lett	HCAPLUS
Devane, W	1992 258	1946 Science	HCAPLUS
Fan, F	1996 706	13 Brain Res	HCAPLUS
Fan, F	1994 271	1383 J Pharmacol Exp Ter	HCAPLUS
Felder, C	1995 48	443 Mol Pharmacol	HCAPLUS
Fride, E	1995 697	83 Brain Res	HCAPLUS
Galiegue, S	1995 232	54 Eur J Biochem	HCAPLUS
Gerard, C	1991 279	129 Biochem J	HCAPLUS
Grady, E	1995 270	4603 J Biol Chem	HCAPLUS
Grady, E	1995 6	509 Mol Biol Cell	HCAPLUS
Graham, F	1973 54	536 Virology	HCAPLUS
Howlett, A	1984 26	532 Mol Pharmacol	HCAPLUS
Kaminski, N	1992 42	736 Mol Pharmacol	HCAPLUS
Kenakin, T	1996 48	413 Pharmacol Rev	HCAPLUS
Koenig, J	1994 269	17174 J Biol Chem	HCAPLUS
Labrecque, J	1995 48	150 Mol Pharmacol	HCAPLUS
Landsman, R	1997 334	R1 Eur J Pharmacol	HCAPLUS
Lefkowitz, R	1993 14	304 TIPS	
Lohse, M	1990 248	1547 Science	HCAPLUS
Mac Ewan, D	1996 50	1479 Mol Pharmacol	HCAPLUS
Mackie, K	1992 89	3825 Proc Natl Acad Sci U	HCAPLUS
Massi, P	1997 58	73 Pharmacol Biochem Be	HCAPLUS
Matsuda, L	1990 346	561 Nature	HCAPLUS
Milligan, G	1995 16	10 Trends Pharmacol Sci	HCAPLUS
Miloux, B	1994 149	341 Gene	HCAPLUS
Munro, S	1993 365	61 Nature	HCAPLUS
Onorato, J	1991 30	5118 Biochemistry	HCAPLUS
Oviedo, A	1993 616	293 Brain Res	HCAPLUS
Ozcelebi, F	1996 271	3750 J Biol Chem	HCAPLUS
Pak, Y	1996 50	1214 Mol Pharmacol	HCAPLUS
Palczewski, K	1989 28	8764 Biochemistry	HCAPLUS
Pertwee, R	1993 110	1483 Br J Pharmacol	HCAPLUS
Pertwee, R	1991	231 The Biological Bases	HCAPLUS
Rinaldi-Carmona, M	1994 350	240 FEBS Lett	HCAPLUS
Rinaldi-Carmona, M	1996 278	871 J Pharmacol Exp Ther	HCAPLUS
Rinaldi-Carmona, M	1995 56	1941 Life Sci	HCAPLUS
Rodriguez De Fonseca, F	1994 47	33 Pharmacol Biochem Be	MEDLINE
Rubino, T	1994 5	2493 NeuroReport	HCAPLUS
Scarpace, P	1982 223	327 J Pharmacol Exp Ther	HCAPLUS
Shire, D	1995 270	3726 J Biol Chem	HCAPLUS
Shire, D	1996 271	6941 J Biol Chem	HCAPLUS
Slipetz, D	1995 48	352 Mol Pharmacol	HCAPLUS
Thomas, R	1992 89	4490 Proc Natl Acad Sci U	HCAPLUS
Tietz, E	1986 236	282 J Pharmacol Exp Ther	
Twitchell, W	1997 78	43 J Neurophysiol	HCAPLUS
Von Zastrow, M	1992 267	3530 J Biol Chem	HCAPLUS
Werling, L	1989 86	6393 Proc Natl Acad Sci U	HCAPLUS
Westlake, T	1994 63	637 Neurosciences	HCAPLUS

DN 130:90442  
 TI Effects of cannabinoids on prolactin and gonadotrophin secretion: involvement of changes in hypothalamic .gamma.-aminobutyric acid (GABA) inputs  
 AU De Miguel, Rosario; Romero, Julian; Munoz, Raul M.; Garcia-Gil, Lucia; Gonzalez, Sara; Villanua, Maria A.; Makriyannis, Alexandros; Ramos, Jose A.; Fernandez-Ruiz, J. Javier  
 CS DEPARTMENT OF BIOCHEMISTRY, FACULTY OF MEDICINE, COMPLUTENSE UNIVERSITY, MADRID, 28040, Spain  
 SO Biochemical Pharmacology (1998), 56(10), 1331-1338  
 CODEN: BCPCA6; ISSN: 0006-2952  
 PB Elsevier Science Inc.  
 DT Journal  
 LA English  
 AB CB1 cannabinoid receptors are located in hypothalamic nuclei and their activation alters several hypothalamic neurotransmitters resulting in, among other things, decreased prolactin (PRL) and LH secretion from the anterior pituitary gland. In the present study, we addressed two related objectives to further explore this complex regulation. First, we examd. whether changes in .gamma.-aminobutyric acid (GABA) and/or dopamine (DA) inputs in the medial basal hypothalamus might occur in parallel to the effects resulting from the activation of CB1 receptors on PRL and gonadotrophin secretion in male rats. Thus, the acute administration of (-)-.DELTA.9-tetrahydrocannabinol (.DELTA.9-THC) produced, as expected, a marked decrease in plasma PRL and LH levels, with no changes in FSH levels. This was paralleled by an increase in the contents of GABA, but not of DA, in the medial basal hypothalamus and, to a lesser extent, in the anterior pituitary gland. The co-administration of .DELTA.9-THC and SR141716, a specific antagonist for CB1 receptors, attenuated both PRL and LH decrease and GABA increase, thus asserting the involvement of the activation of CB1 receptors in these effects. As a second objective, we tested whether the prolonged activation of these receptors might induce tolerance with regard to the decrease in PRL and LH release, and whether this potential tolerance might be related to changes in CB1-receptor binding and/or mRNA expression. The chronic administration of R-methanandamide (AM356), a more stable analog of anandamide, the putative endogenous cannabinoid ligand, produced a marked decrease in plasma PRL and LH levels, with no changes in FSH. The decreases were of similar magnitude to those caused by a single injection of this cannabimimetic ligand, thus suggesting the absence of tolerance. In parallel, the anal. of CB1-receptor binding and mRNA expression in several hypothalamic structures proved that the acute or chronic administration of AM356 did not affect either the binding or the synthesis of these receptors. In summary, the activation of CB1 receptors in hypothalamic nuclei produced the expected decrease in PRL and LH secretion, an effect which might be related to an increase in GABAergic activity in the hypothalamus-anterior pituitary axis. The prolonged activation of these receptors for five days did not elicit tolerance in terms of an attenuation in the magnitude of the decrease in PRL and LH, and, accordingly, did not alter CB1-receptor binding and mRNA levels in the hypothalamic nuclei examd.  
 IT 168273-06-1, SR141716  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (effects of cannabinoids on prolactin and gonadotrophin secretion and involvement of changes in hypothalamic GABA inputs)

## RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Abadji, V	1994	37	1889	J Med Chem	HCAPLUS
Bonnin, A	1994	48	1387	Biochem Pharmacol	HCAPLUS
Bonnin, A	1994	16	305	Neuroendocrine Lett	HCAPLUS
Bonnin, A	1993	58	280	Neuroendocrinology	HCAPLUS

Dalterio, S	1986	8	345	Neurobehav Toxicol	T	HCAPLUS
de Fonseca, F	1991	43	713	Neuroscience		
de Fonseca, F	1992	42	269	Pharmacol Biochem	Be	
Devane, W	1992	258	1946	Science		HCAPLUS
Esquifino, A	1994	60	581	Neuroendocrinology		HCAPLUS
Esquifino, A	1995	208	397	Proc Soc Exp Biol	Me	HCAPLUS
Fernandez-Ruiz, J	1997	53	1919	Biochem Pharmacol		HCAPLUS
Fernandez-Ruiz, J	1992		119	Marihuana/Cannabinoi		HCAPLUS
Fernandez-Ruiz, J	1992	14	349	Neuroendocrine Lett		HCAPLUS
Herkenham, M	1991	11	563	J Neurosci		HCAPLUS
Howlett, A	1990	13	420	Trends Neurosci		HCAPLUS
Hughes, C	1981	109	876	Endocrinology		HCAPLUS
Jansen, E	1992	575	93	Brain Res		HCAPLUS
Kramer, J	1978	103	452	Endocrinology		HCAPLUS
Lynn, A	1994	268	1612	J Pharmacol Exp Ther		HCAPLUS
Mailleux, P	1992	48	655	Neuroscience		HCAPLUS
Muller, E	1989	21	75	Pharmacol Res		MEDLINE
Murphy, L	1990	2	73	Biochemistry and Phy		
Murphy, L	1994	16	1	Neuroendocrine Lett		HCAPLUS
Murphy, L	1990	52	316	Neuroendocrinology		HCAPLUS
Murphy, L	1991	40	603	Pharmacol Biochem	Be	HCAPLUS
Nicoletti, F	1985	44	1217	J Neurochem		HCAPLUS
Oviedo, A	1993	616	293	Brain Res		HCAPLUS
Paxinos, G	1986			The rat brain in ste		
Puder, M	1985	59	213	Exp Brain Res		HCAPLUS
Racagni, G	1982	31	823	Life Sci		HCAPLUS
Rinaldi-Carmona, M	1994	350	240	FEBS Lett		HCAPLUS
Romero, J	1997	46	100	Brain Res Mol Brain		HCAPLUS
Romero, J	1998	62	351	Life Sci		HCAPLUS
Romero, J	1998	63	351	Life Sci		HCAPLUS
Romero, J	1994	16	159	Neuroendocrine Lett		HCAPLUS
Romero, J	1998	84	1075	Neuroscience		HCAPLUS
Rubino, T	1994	5	2493	Neuroreport		HCAPLUS
Schimchowitsch, S	1991	83	575	Exp Brain Res		MEDLINE
Sim, L	1996	15	8057	J Neurosci		
Smith, S	1994	652	228	J Chromatography		HCAPLUS
Sugita, S	1992	134	207	Neurosci Lett		HCAPLUS
Tal, J	1983	273	179	Brain Res		HCAPLUS
Tuomisto, J	1985	37	249	Pharmacol Rev		HCAPLUS
Wagner, B	1994	659	194	Brain Res		
Wenger, T	1997	237	724	Biochem Biophys Res		HCAPLUS
Wenger, T	1994	16	1295	Neuroendocrine Lett		

L66 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:682119 HCAPLUS

DN 129:293903

TI Pharmaceutical composition for oral administration of a n-piperidino-3-pyrazolecarboxamide derivatives, its salts and their solvates

IN Abramovici, Bernard; Condamine, Christian; Gromenil, Jean-Claude

PA SANOFI, Fr.

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9843636	A1	19981008	WO 1998-FR631	19980327 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

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FR 2761266 A1 19981002 FR 1997-3835 19970328 <--

FR 2761266 B1 19990702

ZA 9802609 A 19980930 ZA 1998-2609 19980327 <--

AU 9870527 A1 19981022 AU 1998-70527 19980327 <--

AU 740486 B2 20011108

EP 969832 A1 20000112 EP 1998-917259 19980327 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI

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AT 202703 E 20010715 AT 1998-917259 19980327 <--

JP 2001517224 T2 20011002 JP 1998-541241 19980327 <--

ES 2161049 T3 20011116 ES 1998-917259 19980327 <--

PRAI FR 1997-3835 A 19970328 <--

WO 1998-FR631 W 19980327

AB Pharmaceutical compns. for oral administration contain 0.5 % to 20 % of N-piperidino-5- (4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide (I) in microcryst. form and pharmaceutical vehicles. The compns. are formulated by wet granulation. A pharmaceutical capsule contained I 1 mg, starch 51, lactose monohydrate 103.33, povidone K30 4.3, CM-cellulose sodium 8.5, sodium lauryl sulfate 0.17, and magnesium stearate 1.7 mg.

IT 168273-06-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmaceutical compn. for oral administration of piperidinopyrazolecarboxamide derivs., its salts and their solvates)

L66 ANSWER 4 OF 25 HCPLUS COPYRIGHT 2002 ACS

AN 1998:682118 HCPLUS

DN 129:293902

TI Pharmaceutical composition for oral administration of a N-piperidino-3-pyrazolecarboxamide derivative, its salts and their solvates

IN Gautier, Jean-Claude; Marrier, Jean-Marie

PA SANOFI, Fr.

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9843635	A1	19981008	WO 1998-FR630	19980327 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	FR 2761265	A1	19981002	FR 1997-3834	19970328 <--
	FR 2761265	B1	19990702		
	AU 9870526	A1	19981022	AU 1998-70526	19980327 <--
PRAI	FR 1997-3834		19970328 <--		
	WO 1998-FR630		19980327		
AB	Pharmaceutical compns. contg. 0.5 % to 8 % of N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide (I) and 1.5 % to 5 % of Poloxamer F127, formulated in a macrogoglyceride. A capsule contained I 10, Gelucire 44-14 235, and Poloxamer F127 5 mg.				
IT	168273-06-1				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				

(pharmaceutical compn. for oral administration of piperidinopyrazolecarboxamide derivs.)

1993  
5. Pain Sympt.  
10/22/89-97-  
5. Palliat. Care  
1994  
10/11/88

L66 ANSWER 5 OF 25 HCPLUS COPYRIGHT 2002 ACS  
 AN 1998:635123 HCPLUS  
 DN 129:339820  
 TI Cannabinoid receptor agonists protect cultured rat hippocampal neurons from excitotoxicity  
 AU Shen, Maoxing; Thayer, Stanley A.  
 CS Department of Pharmacology, University of Minnesota Medical School, Minneapolis, MN, 55455, USA  
 SO Molecular Pharmacology (1998), 54(3), 459-462  
 CODEN: MOPMA3; ISSN: 0026-895X  
 PB Williams & Wilkins  
 DT Journal  
 LA English  
 AB Cannabinoid receptor agonists act presynaptically to inhibit the release of glutamate. Because other drugs with this action are known to reduce excitotoxicity, the authors tested several cannabimimetics in a model of synaptically mediated neuronal death. Redn. of the extracellular Mg<sup>2+</sup> concn. to 0.1 mM evoked a repetitive pattern of intracellular Ca<sup>2+</sup> concn. ([Ca<sup>2+</sup>]<sub>i</sub>) spiking that, when maintained for 24 h, resulted in significant neuronal death. The [Ca<sup>2+</sup>]<sub>i</sub> spiking and cell death in this model result from excessive activation of N-methyl-D-aspartate receptors, as indicated by the inhibition of both [Ca<sup>2+</sup>]<sub>i</sub> spiking and neuronal death by the N-methyl-D-aspartate receptor antagonist CGS19755 (10 .mu.M). The cannabimimetic drug Win55212-2 (100 nM) completely blocked [Ca<sup>2+</sup>]<sub>i</sub> spiking and prevented neuronal death induced by low extracellular Mg<sup>2+</sup> concns. These effects on [Ca<sup>2+</sup>]<sub>i</sub> spiking and viability were stereoselective and were prevented by the CB1 receptor antagonist SR141716 (100 nM). The partial agonist CP55940 (100 nM) also afforded significant protection from excitotoxicity. Cannabimimetic drugs did not protect cells from the direct application of glutamate (30 .mu.M). These data suggest that cannabimimetic drugs may slow the progression of neurodegenerative diseases.  
 IT 168273-06-1, SR141716  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (cannabinoid receptor agonists protect cultured rat hippocampal neurons from excitotoxicity)

L66 ANSWER 6 OF 25 HCPLUS COPYRIGHT 2002 ACS  
 AN 1998:623584 HCPLUS  
 DN 129:298324  
 TI .DELTA.9-Tetrahydrocannabinol induces apoptosis in C6 glioma cells  
 AU Sanchez, Cristina; Galve-Roperh, Ismael; Canova, Cecile; Brachet, Philippe; Guzman, Manuel  
 CS School of Biology, Department of Biochemistry and Molecular Biology I, Complutense University, Madrid, 28040, Spain  
 SO FEBS Letters (1998), 436(1), 6-10  
 CODEN: FEBLAL; ISSN: 0014-5793  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB .DELTA.9-Tetrahydrocannabinol (THC), the major active component of marijuana, induced apoptosis in C6.9 glioma cells, as detd. by DNA fragmentation and loss of plasma membrane asymmetry. THC stimulated sphingomyelin hydrolysis in C6.9 glioma cells. THC and N-acetylsphingosine, a cell-permeable ceramide analog, induced apoptosis in several transformed neural cells but not in primary astrocytes or neurons. Although glioma C6.9 cells expressed the CB1 cannabinoid receptor, neither THC-induced apoptosis nor THC-induced sphingomyelin

breakdown were prevented by **SR141716**, a specific antagonist of that receptor. Results thus show that THC-induced apoptosis in glioma C6.9 cells may rely on a CB1 receptor-independent stimulation of sphingomyelin breakdown.

IT **168273-06-1, SR141716**

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**

(.DELTA.9-Tetrahydrcannabinol induces apoptosis in C6 glioma cells)

L66 ANSWER 7 OF 25 HCPLUS COPYRIGHT 2002 ACS

AN 1998:608544 HCPLUS

DN 129:235654

TI Movement of a test substance within a membranous system

IN Melchior, Donald L.; Makriyannis, Alexandros

PA University of Massachusetts, USA; University of Connecticut

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837920	A1	19980903	WO 1998-US3823	19980227 <--
	W: AU, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9866704	A1	19980918	AU 1998-66704	19980227 <--

PRAI US 1997-795948 19970228 <--

WO 1998-US3823 19980227

AB A method is disclosed for detg. the rate with which a test mol. assocs. with or accumulates in a membrane, by forming a membranous system that contains lipid mols. in assocn. with a reporter mol., applying the test mol. to the system, and measuring the signal generated by the reporter mol. The tests are performed to det. pharmaceuticals mode of action and whether they can be safely and efficiently delivered to the site of action. An example is given for prepn. of fluorosomes contg. the reporter mol. diphenylhexatriene and phosphatidylcholine as the lipid.

IT **168273-06-1**

RL: **PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)**

(movement of a test substance within a membranous system)

L66 ANSWER 8 OF 25 HCPLUS COPYRIGHT 2002 ACS

AN 1998:551124 HCPLUS

DN 129:270516

TI Cannabinoids decrease excitatory synaptic transmission and impair long-term depression in rat cerebellar Purkinje cells

AU Levenes, Carole; Daniel, Herve; **Soubrie, Philippe**; Crepel, Francis

CS Laboratoire de Neurobiologie et Neuropharmacologie du Developpement, Paris, 75005, Fr.

SO Journal of Physiology (Cambridge, United Kingdom) (1998), 510(3), 867-879

CODEN: JPHYA7; ISSN: 0022-3751

PB Cambridge University Press

DT Journal

LA English

AB CB-1 cannabinoid receptors are strongly expressed in the mol. layer of the cerebellar cortex. We analyzed, in patch-clamped Purkinje cells (PCs) in rat cerebellar slices, the effect of the selective CB-1 agonists WIN55,212-2 and CP55,940 and of the selective CB-1 antagonist **SR141716-A** on excitatory synaptic transmission and synaptic

plasticity. Bath application of both agonists markedly depressed parallel fiber (PF) excitatory postsynaptic currents (EPSC)s. This effect was reversed by SR141716-A. Responses of PCs to ionophoretic application of glutamate were not affected by WIN55,212-2. The coeff. of variation and the paired-pulse facilitation of these PF-mediated EPSCs increased in the presence of WIN55,212-2. WIN55,212-2 decreased the frequency of miniature EPSCs and of asynchronous synaptic events evoked in the presence of Sr in the bath, but did not affect their amplitude. WIN55,212-2 did not change the excitability of PFs. WIN55,212-2 impaired long-term depression induced by pairing protocols in PCs. This effect was antagonized by SR141716-A. The same impairment of LTD was produced by 2-chloroadenosine, a compd. that decreases the probability of release of glutamate at PF-PC synapses. It was demonstrated that cannabinoids inhibit synaptic transmission at PF-PC synapses by decreasing the probability of release of glutamate, and thereby impair LTD. These 2 effects might represent a plausible cellular mechanism underlying cerebellar dysfunction caused by cannabinoids.

IT 158681-13-1, SR 141716A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(CB-1 cannabinoid receptor antagonist SR141716-A effect on the excitatory synaptic transmission in cerebellar Purkinje cells)

L66 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:527208 HCAPLUS

DN 129:144865

TI Use of central cannabinoid receptor antagonists for regulating appetence

IN Maruani, Jeanne; Soubrie, Philippe

PA Sanofi, Fr.

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9832441	A1	19980730	WO 1998-FR154	19980128 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	FR 2758723	A1	19980731	FR 1997-870	19970128 <--
	FR 2758723	B1	19990423		
	ZA 9800691	A	19980805	ZA 1998-691	19980128 <--
	AU 9862193	A1	19980818	AU 1998-62193	19980128 <--
	EP 969835	A1	200000112	EP 1998-904238	19980128 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9806801	A	200000516	BR 1998-6801	19980128 <--
	JP 2001501971	T2	20010213	JP 1998-531693	19980128 <--
	TW 450808	B	20010821	TW 1998-87101128	19980217 <--
	NO 9903634	A	19990927	NO 1999-3634	19990727 <--
	LV 12354	B	200000220	LV 1999-114	19990727 <--
	US 6344474	B1	20020205	US 1999-341764	19990819 <--
	US 2002128302	A1	20020912	US 2002-44531	20020111 <--
PRAI	FR 1997-870	A	19970128 <--		
	WO 1998-FR154	W	19980128 <--		
	US 1999-341764	A3	19990819		
OS	MARPAT	129:144865			

AB The use of a central cannabinoid receptor antagonist (Markush structure given), on its own or combined with a compd. for regulating metabolic disorders, in particular a .beta.3-adrenergic receptor agonist, for prep. medicines useful for treating appetite disorders is disclosed.  
 N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide (SR 141716) at a dose of 0.3 mg/kg reduced the consumption of sucrose and alc. in guinea pigs. A capsule contained micronized SR 141716 1.00, corn starch 51.00, lactose monohydrate 103.33, polyvidone 4.30, sodium lauryl sulfate 0.17, sodium CM-cellulose 8.50, and magnesium stearate 1.70 mg.

IT 168273-06-1, SR 141716  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (use of central cannabinoid receptor antagonists for regulating appetite)

L66 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1998:489016 HCAPLUS  
 DN 129:211620  
 TI Appetite suppression and weight loss after the cannabinoid antagonist SR 141716  
 AU Colombo, Giancarlo; Agabio, Roberta; Diaz, Giacomo; Lobina, Carla; Reali, Roberta; Gessa, Gian Luigi  
 CS C.N.R. Center for Neuropharmacology, Cagliari, Italy  
 SO Life Sciences (1998), 63(8), PL113-PL117  
 CODEN: LIFSAK; ISSN: 0024-3205  
 PB Elsevier Science Inc.  
 DT Journal  
 LA English  
 AB The effect of the cannabinoid CB1 receptor antagonist, SR 141716, on food intake and body wt. was assessed in adult, non-obese Wistar rats. The daily administration of SR 141716 (2.5 and 10 mg/kg; i.p.) reduced dose-dependently both food intake and body wt. Tolerance to the anorectic effect developed within 5 days; in contrast, body wt. in SR 141716-treated rats remained markedly below that of vehicle-treated rats throughout the entire treatment period (14 days). The results suggest that brain cannabinoid receptors are involved in the regulation of appetite and body wt.

IT 168273-06-1, SR 141716  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (appetite suppression and wt. loss after cannabinoid antagonist SR 141716 in relation to role of brain cannabinoid antagonist in appetite regulation and development of tolerance)

L66 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1998:319380 HCAPLUS  
 DN 129:62852  
 TI Evaluation of cannabinoid receptor agonists and antagonists using the guanosine-5'-O-(3-[35S]thio)-triphosphate binding assay in rat cerebellar membranes  
 AU Griffin, Graeme; Atkinson, Peter J.; Showalter, Vincent M.; Martin, Billy R.; Abood, Mary E.  
 CS Department of Pharmacology and Toxicology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA, USA  
 SO Journal of Pharmacology and Experimental Therapeutics (1998), 285(2), 553-560  
 CODEN: JPETAB; ISSN: 0022-3565  
 PB Williams & Wilkins  
 DT Journal  
 LA English

AB Cannabinoid receptors are members of the superfamily of G protein-coupled receptors. Their activation has previously been shown to stimulate guanosine 5'-O-(3-[35S]thio)-triphosphate ([35S]GTP. $\gamma$ S) binding in a range of brain regions using both membrane preps. and autoradiog. This study evaluates the activities of structurally diverse cannabinoid receptor ligands in the GTP. $\gamma$ S binding assay, comparing the relationship between receptor binding and activation and also examg. efficacy differences between compds. Using rat cerebellar membrane preps., the effects of GDP concn. on GTP. $\gamma$ S binding and the activities of a range of cannabinoid receptor ligands, including the CB1 selective antagonist **SR141716A**, were investigated. GDP concn. was found to have differing effects on cannabinoid-stimulated [35S]GTP. $\gamma$ S binding depending on the nature of the agonist used. The stimulation produced by high efficacy compds., such as CP 55,940 and WIN 55212-2, was increased by raising the GDP concn., but that of a low efficacy agonist, (-)-.DELTA.-tetrahydrocannabinol, was decreased. Of the cannabinoid compds. tested, a wide range of potencies (EC50) and levels of maximal stimulation (Emax) were obsd. These ranged from CP 55,244 (Emax of 165, 148-183%, and an EC50 of 0.47, 0.22-0.96, nM) through (-)-.DELTA.-tetrahydrocannabinol, cannabinol and anandamide, which produced no concn.-dependent stimulation of [35S]GTP. $\gamma$ S binding under the same conditions. **SR141716A** competitively antagonized all the agonists against which it was tested, providing equil. dissocn. consts. (Kd values) in the sub-nanomolar range (0.06-0.40 nM), implicating a CB1 receptor mediated response. These results provide a more detailed characterization of the cannabinoid-stimulated [35S]GTP. $\gamma$ S binding assay than has previously been reported.

IT 168273-06-1, **SR141716**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(evaluation of cannabinoid receptor agonists and antagonists using the guanosine-5'-O-(3-thio)triphosphate binding assay)

L66 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:290653 HCAPLUS

DN 129:64245

TI Reduction of voluntary ethanol intake in ethanol-preferring sP rats by the cannabinoid antagonist **SR-141716**

AU Colombo, Giancarlo; Agabio, Roberta; Fa, Mauro; Guano, Lorenza; Lobina, Carla; Loche, Antonella; Reali, Roberta; Gessa, Gian Luigi

CS C.N.R. Center Neuropharmacology, University Cagliari, Cagliari, I-09124, Italy

SO Alcohol and Alcoholism (Oxford) (1998), 33(2), 126-130

CODEN: ALALDD; ISSN: 0735-0414

PB Oxford University Press

DT Journal

LA English

AB The present study assessed the efficacy of the cannabinoid CB1 receptor antagonist, **SR-141716**, in reducing voluntary ethanol intake in selectively bred Sardinian alc.-preferring (sP) rats. Ethanol (10%, vol./vol.) and food were available in daily 4 h scheduled access periods; water was present 24 h/day. The acute administration of a 2.5 and a 5 mg/kg dose of **SR-141716** selectively reduced ethanol intake, whereas a 10 mg/kg dose of **SR-141716** reduced to a similar extent both ethanol and food intake. These results suggest that the cannabinoid CB1 receptor is involved in the mediation of the ethanol-reinforcing effects in sP rats.

IT 168273-06-1, **SR-141716**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(redn. of voluntary ethanol intake in ethanol-preferring sP rats by the cannabinoid antagonist **SR-141716**)

L66 ANSWER 13 OF 25 HCPLUS COPYRIGHT 2002 ACS  
 AN 1998:281777 HCPLUS  
 DN 129:76332  
 TI **SR 141716**, a CB1 cannabinoid receptor antagonist,  
     selectively reduces sweet food intake in marmoset  
 AU Simiand, J.; Keane, M.; Keane, P. E.; Soubrie, P.  
 CS Sanofi Recherche, Toulouse, 31036, Fr.  
 SO Behavioural Pharmacology (1998), 9(2), 179-181  
 CODEN: BPHEAL; ISSN: 0955-8830  
 PB Rapid Science Ltd.  
 DT Journal  
 LA English  
 AB **SR 141716** (1 and 3 mg/kg p.o.), a selective central  
     (CB1) cannabinoid receptor antagonist, selectively reduced feeding of a  
     very highly palatable cane-sugar mixt. in marmosets. In contrast, std.  
     primate pellet intake was not modified at the lower dose, but was slightly  
     increased (+29%; p < 0.01) by the higher dose of **SR**  
**141716**. These results are in agreement with the hypothesis that  
     endogenous cannabinoid systems are involved in the modulation of the  
     appetitive value of food.

IT 168273-06-1, **SR 141716**  
 RL: BAC (Biological activity or effector, except adverse); BSU  
     (Biological study, unclassified); BIOL (Biological study)  
     (**SR 141716**, a CB1 cannabinoid receptor antagonist,  
     selectively reduces sweet food intake in marmoset)

L66 ANSWER 14 OF 25 HCPLUS COPYRIGHT 2002 ACS  
 AN 1998:200760 HCPLUS  
 DN 128:316761  
 TI Cannabinoid receptor agonists and antagonists  
 AU Barth, Francis  
 CS Sanofi Recherche, Montpellier, 34184, Fr.  
 SO Expert Opinion on Therapeutic Patents (1998), 8(3), 301-313  
 CODEN: EOTPEG; ISSN: 1354-3776  
 PB Ashley Publications  
 DT Journal; General Review  
 LA English  
 AB A review, with 111 refs. Following the discovery of two distinct  
     cannabinoid receptors (CB1 and CB2) in the early 1990s, the medicinal  
     chem. of cannabinoids has seen renewed interest. In the last decade, at  
     least three entirely new chem. series were shown to bind to cannabinoid  
     receptors: the aminoalkylindoles developed by Sterling (WIN 55212-2  
     analogs), the fatty acid derivs. derived from the endogenous ligand  
     anandamide, and Sanofi's diaryl pyrazoles. Moreover, other compds., such  
     as benzofurans (Lilly) or substituted arom. amide derivs. (Japan Tobacco)  
     that also bind to cannabinoid receptor have recently been disclosed in the  
     patent literature. In terms of pharmacol. profile, the major advances of  
     the last five years are the emergence of selective CB2 agonists (Merck,  
     Sanofi) with potential applications as immunomodulants and the development  
     of the first selective CB1 antagonist **SR 141716**,  
     followed recently by the first CB2 antagonist SR 144528. Turning these  
     newly discovered pharmacol. tools into useful drugs remains the challenge  
     for research in coming years.

L66 ANSWER 15 OF 25 HCPLUS COPYRIGHT 2002 ACS  
 AN 1998:46949 HCPLUS  
 DN 128:149875  
 TI Cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in  
     the human and guinea-pig hippocampus. [Erratum to document cited in  
     CA128:10525]  
 AU Schlicker, E.; Timm, J.; Zentner, J.; Gothert, M.  
 CS Institut fur Pharmakologie und Toxikologie, Universitat Bonn, Bonn,  
     D-53113, Germany

SO Naunyn-Schmiedeberg's Archives of Pharmacology (1998), 357(2),  
 190  
 CODEN: NSAPCC; ISSN: 0028-1298  
 PB Springer-Verlag  
 DT Journal  
 LA English  
 AB Due to unfortunate errors, the concns. of Ca<sup>2+</sup> and K<sup>+</sup> in the 9th and 10th  
 line of the Abstr. and the concn. of Ca<sup>2+</sup> in the 17th line of the right  
 column on p.584 are incorrect. It should have read "mM" instead of  
 ".mu.M".  
 IT 168273-06-1, SR 141716  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); BIOL (Biological study)  
 (cannabinoid CB1 receptor-mediated inhibition of noradrenaline release  
 in human and guinea pig brain (Erratum))  
  
 L66 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1997:693969 HCAPLUS  
 DN 128:10525  
 TI Cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in  
 the human and guinea pig hippocampus  
 AU Schlicker, E.; Timm, J.; Zentner, J.; Gothert, M.  
 CS Institut fur Pharmakologie und Toxikologie, Universitat Bonn,  
 Reuterstrasse 2b, Bonn, D-53113, Germany  
 SO Naunyn-Schmiedeberg's Archives of Pharmacology (1997), 356(5),  
 583-589  
 CODEN: NSAPCC; ISSN: 0028-1298  
 PB Springer  
 DT Journal  
 LA English  
 AB We examd. the question of whether cannabinoid receptors modulating  
 noradrenaline release are detectable in the brain of humans and exptl.  
 animals. For this purpose, hippocampal slices from humans, guinea pigs,  
 rats and mice and cerebellar, cerebrocortical and hypothalamic slices from  
 guinea pigs were incubated with [<sup>3</sup>H]noradrenaline and then superfused.  
 Tritium overflow was evoked either elec. (0.3 or 1 Hz) or by introduction  
 of Ca<sup>2+</sup> (1.3 .mu.M) into Ca<sup>2+</sup>-free, K<sup>+</sup>-rich medium (25 .mu.M) contg.  
 tetrodotoxin 1 .mu.M. Furthermore, the cAMP accumulation stimulated by  
 forskolin 10 .mu. M was detd. in guinea pig hippocampal membranes. We  
 used the following drugs: the cannabinoid receptor agonists CP-55,940 and  
 WIN 55,212-2, the inactive S(-)-enantiomer of the latter (WIN 55,212-3)  
 and the CB1 receptor antagonist SR 141716. The elec.  
 evoked tritium overflow from guinea pig hippocampal slices was reduced by  
 WIN 55,212-2 (pIC50% 6.5) but not affected by WIN 55,212-3 up to 10 .mu.M.  
 The concn.-response curve of WIN 55,212-2 was shifted to the right by  
 SR 141716 (0.032 .mu.M) (apparent pA<sub>2</sub> 8.2), which by  
 itself did not affect the evoked overflow. WIN 55,212-2 (1 .mu.M) also  
 inhibited the Ca<sup>2+</sup>-evoked tritium overflow in guinea pig hippocampal  
 slices and the elec. evoked overflow in guinea pig cerebellar,  
 cerebrocortical and hypothalamic slices as well as in human hippocampal  
 slices but not in rat and mouse hippocampal slices. SR  
 141716 (0.32 .mu.M) markedly attenuated the WIN 55,212-2-induced  
 inhibition in guinea pig and human brain slices. SR  
 141716 (0.32 .mu.M) by itself increased the elec. evoked tritium  
 overflow in guinea pig hippocampal slices but failed to do so in slices  
 from the other brain regions of the guinea pig and in human hippocampal  
 slices. The cAMP accumulation stimulated by forskolin was reduced by  
 CP-55,940 and WIN 55,212-2. The concn.-response curve of CP 55,940 was  
 shifted to the right by SR 141716 (0.1 .mu.M; apparent  
 pA<sub>2</sub> 8.3), which by itself did not affect cAMP accumulation. In  
 conclusion, cannabinoid receptors of the CB1 subtype occur in the human  
 hippocampus, where they may contribute to the psychotropic effects of  
 cannabis, and in the guinea pig hippocampus, cerebellum, cerebral cortex

and hypothalamus. The CB1 receptor in the guinea pig hippocampus is located presynaptically, is activated by endogenous cannabinoids and may be neg. coupled to adenylyl cyclase.

IT 168273-06-1, SR 141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cannabinoid CB1 receptor-mediated inhibition of noradrenaline release in human and guinea pig brain)

L66 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:496071 HCAPLUS

DN 127:185723

TI Selective inhibition of sucrose and ethanol intake by **SR 141716**, an antagonist of central cannabinoid (CB1) receptors

AU Arnone, Michele; Maruani, Jeanne; Chaperon, Frederique; Thiebot, Marie-Helene; Poncelet, Martine; Soubrie, Philippe; Le Fur, Gerard

CS ~~Sanofi Recherche, Route d'Espagne, Toulouse, F-31000, Fr.~~

SO Psychopharmacology (Berlin) (1997), 132(1), 104-106

CODEN: PSCHDL; ISSN: 0033-3158

PB Springer

DT Journal

LA English

AB **SR 141716**, a selective central CB1 cannabinoid receptor antagonist, markedly and selectively reduces sucrose feeding and drinking as well as neuropeptide Y-induced sucrose drinking in rats.

**SR 141716** also decreases ethanol consumption in C57BL/6 mice. In contrast, blockade of CB1 receptors only marginally affects regular chow intake or water drinking. The active doses of **SR 141716** (0.3-3 mg/kg) are in the range known to antagonize the characteristic effects induced by cannabinoid receptor agonists. These results suggest for the first time that endogenous cannabinoid systems may modulate the appetitive value of sucrose and ethanol, perhaps by affecting the activity of brain reward systems.

IT 168273-06-1, SR 141716

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cannabinoid antagonist **SR 141716** selective inhibition of sucrose and ethanol intake)

L66 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:433633 HCAPLUS

DN 127:55894

TI Stable freeze-dried pharmaceutical formulation containing mannitol and alanine

IN Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe

PA **Sanofi, Fr.**; Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9717064	A1	19970515	WO 1996-FR1706	19961030 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,				

IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,  
MR, NE, SN, TD, TG

FR 2740686	A1	19970509	FR 1995-13022	19951103 <--
FR 2740686	B1	19980116		
CA 2234140	AA	19970515	CA 1996-2234140	19961030 <--
AU 9674990	A1	19970529	AU 1996-74990	19961030 <--
AU 713383	B2	19991202		
EP 858325	A1	19980819	EP 1996-937367	19961030 <--
EP 858325	B1	20020731		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI

CN 1203527	A	19981230	CN 1996-198786	19961030 <--
BR 9611367	A	19990223	BR 1996-11367	19961030 <--
JP 11507945	T2	19990713	JP 1996-517912	19961030 <--
CZ 287178	B6	20001011	CZ 1998-1231	19961030 <--
IL 124214	A1	20010128	IL 1996-124214	19961030 <--
RU 2163801	C2	20010310	RU 1998-110638	19961030 <--
AT 221374	E	20020815	AT 1996-937367	19961030 <--
ZA 9609176	A	19980430	ZA 1996-9176	19961031 <--
TW 442295	B	20010623	TW 1996-85114410	19961122 <--
NO 9801967	A	19980630	NO 1998-1967	19980430 <--
US 6284277	B1	20010904	US 1998-66387	19981209 <--

PRAI FR 1995-13022 A 19951103 <--  
WO 1996-FR1706 W 19961030 <--

AB A pharmaceutically acceptable freeze-dried formulation consisting of an amorphous phase and a cryst. phase and including at least one non-protein active principle is disclosed. The formulation is characterized in that it contains mannitol and alanine in a ratio R of 0.1-1, where R is the wt. of mannitol over the wt. of alanine. A free-dried pharmaceutical contained SR 57746A 0.44, alanine 72.0, mannitol 36.0, citric acid 30.8, and Polysorbate-80 4.0 mg.

IT 168273-06-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(stable freeze-dried pharmaceutical formulation contg. mannitol and alanine)

L66 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:359669 HCAPLUS

DN 127:75864

TI Atypical location of cannabinoid receptors in white matter areas during rat brain development

AU Romero, J.; Garcia-Palomero, E.; Berrendero, F.; Garcia-Gil, L.; Hernandez, M. L.; Ramos, J. A.; Fernandez-Ruiz, J. J.

CS Inst. Complutense Drogodependencias, Dep. Biochem., Fac. Med., Complutense Univ., Madrid, Spain

SO Synapse (New York) (1997), 26(3), 317-323

CODEN: SYNAET; ISSN: 0887-4476

PB Wiley-Liss

DT Journal

LA English

AB Previous evidence suggest that the endogenous cannabinoid system could merge and be operative early during brain development. In the present study, the authors have explored the distribution of specific binding for cannabinoid receptors in rat brain at gestational day 21 (GD21), postnatal days 5 (PND5) and 30 (PND30), and at adult age (>70 days after birth) by using autoradiog. with [<sup>3</sup>H]CP-55,940. The results indicated that specific binding for cannabinoid receptors can be detected in the brain of rat fetuses at GD21 in the classic areas that contain these receptors in adulthood-in particular, in the cerebellum and the hippocampus and, to a lesser extent, in the basal ganglia, several limbic structures, and cerebral cortex. The d. of cannabinoid receptors in all these structures increased progressively at all postnatal ages studied until reaching the classical adult values in 70-day-old animals. Interestingly, cannabinoid

receptor binding can also be detected at GD21 in regions, in which they are scarcely distributed or not located in the adult brain and that have the particularity of all being enriched in neuronal fibers. Among these were the corpus callosum, anterior commissure, stria terminalis, fornix, white matter areas of brainstem, and others. This atypical location was quant. high at GD21, tended to wane at PND5, and practically disappeared PND30 and in adulthood, with the only exception being the anterior commissure, which exhibited a moderate d. for cannabinoid receptors. Moreover, the binding of [<sup>3</sup>H]CP-55,940 to cannabinoid receptors in the white matter regions at GD21 seems to be functional and involves a GTP-binding protein-mediated mechanism. Thus, the activation of these receptors with an agonist such as WIN-55,212-2 increased the binding of [<sup>35</sup>S]-guanylyl-5'-O-(-.gamma.-thio)-triphosphate, measured by autoradiog., in the corpus callosum and white matter areas of brainstem of fetuses at GD21. This increase was reversed by coincubation of WIN-55,212-2 with **SR141716**, a cannabinoid receptor antagonist. As this antagonist is specific for the cerebral cannabinoid receptor subtype, called CB1, the authors can assert that the signal found for cannabinoid receptor binding in the fetal and early postnatal brain likely corresponds to this receptor subtype. Collectively, all these data suggest that existence of a transient period of the brain development in the rat, around the last days of the fetal period and the first days of postnatal life, in which CB1 receptors appear located in neuronal fiber-enriched areas. During this period, CB1 receptors would be already functional acting through a GTP-binding protein-mediated mechanism. After this transient period, they progressively acquire the pattern of adult distribution. All this accounts for a specific role of the endogenous cannabinoid system in brain development.

IT **168273-06-1, SR141716**

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)**  
 (atypical location of cannabinoid receptors in white matter areas during rat brain development)

L66 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1997:311258 HCAPLUS  
 DN 127:5085  
 TI Pyrazole derivatives as cannabinoid receptor agonists  
 IN Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge;  
 Rinaldi, Murielle; Anne-Arachard, Gilles  
 PA **Sanofi, Fr.**  
 SO U.S., 45 pp., Cont.-in-part of U.S. Ser. No. 168,237, abandoned.  
 CODEN: USXXAM

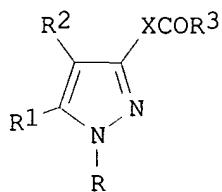
DT Patent

LA English

FAN.CNT 3

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PI	US 5624941	A	19970429	US 1994-348881	19941129 <--
	FR 2692575	A1	19931224	FR 1992-7645	19920623 <--
	FR 2692575	B1	19950630		
	FR 2713224	A1	19950609	FR 1993-14444	19931202 <--
	FR 2713224	B1	19960301		
	FR 2713225	A1	19950609	FR 1994-8974	19940720 <--
	FR 2713225	B1	19960301		
	ZA 9409342	A	19951009	ZA 1994-9342	19941124 <--
	JP 2001026541	A2	20010130	JP 2000-238472	19941202 <--
PRAI	FR 1992-7645	A	19920623	<--	
	US 1993-79870	B2	19930623	<--	
	FR 1993-14444	A	19931202	<--	
	US 1993-168237	B2	19931217	<--	
	FR 1994-8974	A	19940720	<--	
	JP 1994-300016	A3	19941202	<--	

OS MARPAT 127:5085  
 GI



AB Title compds. I [R, R1 = (un)substituted Ph; R2 = H, alkyl; R3 = amino, (un)substituted alkyl, cycloalkyl aryl, heterocyclic; X = bond, NR4, CH2NR4; R4 = H, alkyl] were prep'd. and have cannabinoid receptor affinity (no data). Thus, 4-ClC6H4COEt was treated with Eto2CCO2Et to give 4-ClC6H4C(OLi):CMeCOCO2Et which was cyclized with 2,4-C12C6H3NHNH2 to give I [R = 2,4-C12C6H3, R1 = 4-ClC6H4, R2 = Me, X = bond, R3 = OEt]. The ester was hydrozyled to the acid, converted to the chloride, and amidated with 1-aminopiperidine to give I [R = 2,4-C12C6H3, R1 = 4-ClC6H4, R2 = Me, X = bond, R3 = piperidinoamino].

IT 168273-06-1P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (prepn. of diarylpyrazoles as cannabinoid receptor agonists)

IT 158681-13-1P 169544-42-7P 169544-44-9P  
 169544-45-0P 169544-46-1P 190141-47-0P  
 190141-50-5P 190141-51-6P 190141-52-7P  
 190141-53-8P 190141-54-9P 190141-55-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of diarylpyrazoles as cannabinoid receptor agonists)

L66 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:41341 HCAPLUS  
 DN 126:220668

TI Cannabinoid receptor-mediated inhibition of dopamine release in the retina  
 AU Schlicker, Eberhard; Timm, Joerg; Goethert, Manfred

CS Institut Pharmakologie Toxikologie, Rheinische Friedrich-Wilhelms-Universitaet, Bonn, D-53113, Germany

SO Naunyn-Schmiedeberg's Archives of Pharmacology (1996), 354(6), 791-795

CODEN: NSAPCC; ISSN: 0028-1298

PB Springer  
 DT Journal  
 LA English

AB The possible occurrence of cannabinoid (CB) receptors was studied on superfused guinea-pig retinal disks preincubated with [3H]dopamine ([3H]DA) or [3H]noradrenaline ([3H]NA). Tritium overflow was evoked either elec. (3 Hz) or by re-introduction of Ca2+ 1.3 mM after superfusion with Ca2+-free medium contg. K+ 30 mM. The accumulation of [3H]DA and [3H]NA was inhibited by the selective inhibitor of the neuronal dopamine transporter GBR-12909 (pIC50% 7.29 and 7.41, resp.) but not by the selective inhibitor of the neuronal noradrenaline transporter desipramine (1 .mu.M). The elec. or Ca2+-evoked tritium overflow in retinal disks preincubated with [3H]DA or [3H]NA was reduced by the CB receptor agonists P-55,940 and WIN 55,2122 (pIC50% in disks preincubated with [3H]NA, elec. stimulation: 7.03 and 6.70, resp.) but not affected by the inactive S(-)enantiomer of the latter, WIN 55,2123 (up to 10 .mu.M). The concn.-response curve of WIN 55,2122 was shifted to the right by the CB1

receptor antagonist **SR 141716** (apparent pA2: 8.29) which, by itself, increased the evoked overflow. The facilitatory effect of **SR 141716** was not affected by GBR-12909 and the dopamine receptor antagonist haloperidol. In conclusion, the dopaminergic neurons of the guinea-pig retina can be labeled by both [3H]DA and [3H]NA. Transmitter release from the dopaminergic neurons is inhibited by activation of cannabinoid receptors of the CR1 type, which appear to be tonically activated by an endogenous CB receptor ligand.

IT 168273-06-1, **SR 141716**

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)**  
(cannabinoid receptor-mediated inhibition of dopamine release in retina)

L66 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:556840 HCAPLUS

DN 125:265677

TI Improvement of memory in rodents by the selective CB1 cannabinoid receptor antagonist, **SR 141716**

AU Terranova, J. P.; Storme, J. J.; Lafon, N.; Perio, A.; Rinaldi-Carmona, M.; Le Fur, G.; **Soubrie, P.**

CS Montpellier, F-34184, Fr.

SO Psychopharmacology (Berlin) (1996), 126(2), 165-172  
CODEN: PSCHDL; ISSN: 0033-3158

PB Springer

DT Journal

LA English

AB Social short-term memory in rodents is based on the recognition of a juvenile by an adult conspecific when the juvenile is presented on two successive occasions. Cannabimimetics are claimed to induce memory deficits in both humans and animals. In the brain, they mainly bind to CB1 receptors for which anandamide is a purported endogenous ligand.

**SR 141716**, a specific antagonist of CB1 receptors, dose-dependently reverses biochem. and pharmacol. effects of cannabimimetics. More particularly, it antagonizes the inhibition of hippocampal long-term potentiation induced by WIN 55,212-2 and anandamide, and it increases arousal when given alone. The present expts. study the ability of **SR 141716** (from 0.03 to 3 mg/kg SC) to facilitate short-term olfactory memory in the social recognition test in rodents. **SR 141716** improved social recognition in a long intertrial paradigm with a threshold dose of 0.1 mg/kg SC. At 1 mg/kg, it antagonized the memory disturbance elicited by retroactive inhibition. Scopolamine (0.06 mg/kg IP) partially reversed its memory-enhancing effect. Moreover, **SR 141716** reduced memory deficit in aged rats (0.03-0.1 mg/kg) and mice (0.3-1 mg/kg). As **SR 141716** is not known to exhibit any pharmacol. activity which is not mediated by CB1 receptors, the results strongly support the concept that blockade of CB1 receptors plays an important role in consolidation of short-term memory in rodents and suggest there may be a role for an endogenous cannabinoid agonist tone (anandaminergic) in forgetting.

IT 168273-06-1, **SR 141716**

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**  
(improvement of memory in rodents by the selective CB1 cannabinoid receptor antagonist **SR 141716**)

L66 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:987208 HCAPLUS

DN 124:76310

TI Inhibition of long-term potentiation in rat hippocampal slices by anandamide and WIN55212-2: reversal by **SR141716** A, a selective

AU antagonist of CB1 cannabinoid receptors  
 AU Terranova, Jean-Paul; Michaud, Jean-Claude; Le Fur, Gerard; **Soubrie, Philippe**  
 CS **Sanofi Recherche, Montpellier, F-34184, Fr.**  
 SO Naunyn-Schmiedeberg's Archives of Pharmacology (1995), 352(5), 576-9  
 CODEN: NSAPCC; ISSN: 0028-1298  
 PB Springer  
 DT Journal  
 LA English  
 AB It has been reported previously that .DELTA.9-tetrahydrocannabinol and the synthetic cannabinoid agonist HU-210 [(-)-11-OH-.DELTA.8-dimethylheptyltetrahydrocannabinol] prevent long-term potentiation (LTP) induction in rat hippocampal slices. In this study we confirm that both WIN 55212-2 (3 and 10. $\mu$ M), another synthetic cannabinoid agonist, and anandamide (10. $\mu$ M), considered to be the endogenous ligand of cannabinoid receptors, inhibit LTP formation in the Schaffer collateral-CA1 field complex. In addn., we show that **SR141716 A** (0.1-10. $\mu$ M), a potent and selective antagonist of CB1 cannabinoid receptors, concn.-dependently reversed the inhibition of LTP induced by both WIN55212-2 and anandamide. These data indicate that cannabinoid receptor agonists inhibit hippocampal LTP formation through CB1 receptor activation and that anandamide could be a candidate for an endogenous neuromessenger involved in memory processes.

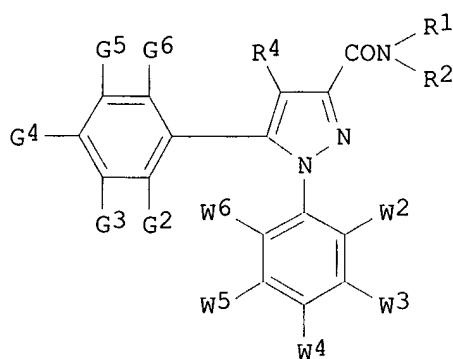
IT 158681-13-1  
 RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (inhibition of long-term potentiation in rat hippocampal slices by anandamide and WIN55212-2 and reversal by CB1 cannabinoid receptor antagonist)**

L66 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1995:887840 HCAPLUS  
 DN 123:286006  
 TI Preparation of N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide as a cannabinoid receptor antagonist  
 IN Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge; Rinaldi, Murielle; Anne-Arachard, Gilles  
 PA **Sanofi, Fr.**  
 SO Eur. Pat. Appl., 12 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA French  
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO. DATE	
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PI EP 656354	A1	19950607	EP 1994-402717	19941129 <--
EP 656354	B1	19970604		
R: AT, BE, CH, DE, DK, ES, FR			GB, GR, IE, IT, LI, LU, MC, NL, PT, SE	
FR 2713224	A1	19950609	FR 1993-14444	19931202 <--
FR 2713224	B1	19960301		
FR 2713225	A1	19950609	FR 1994-8974	19940720 <--
FR 2713225	B1	19960301		
IL 111719	A1	19991028	IL 1994-111719	19941121 <--
AU 9478999	A1	19950615	AU 1994-78999	19941123 <--
AU 685518	B2	19980122		
ZA 9409342	A	19951009	ZA 1994-9342	19941124 <--
CA 2136893	AA	19950621	CA 1994-2136893	19941129 <--
AT 154012	E	19970615	AT 1994-402717	19941129 <--
ES 2105575	T3	19971016	ES 1994-402717	19941129 <--
NO 9404625	A	19950606	NO 1994-4625	19941201 <--
CN 1110968	A	19951101	CN 1994-119030	19941201 <--
CN 1047775	B	19991229		

RU 2141479	C1	19991120	RU 1994-42232	19941201 <--
PL 180289	B1	20010131	PL 1994-306067	19941201 <--
FI 9405690	A	19950603	FI 1994-5690	19941202 <--
HU 71498	A2	19951128	HU 1994-3471	19941202 <--
HU 218277	B	20000728		
JP 07309841	A2	19951128	JP 1994-300016	19941202 <--
JP 3137222	B2	20010219		
JP 2001026541	A2	20010130	JP 2000-238472	19941202 <--
PRAI FR 1993-14444	A	19931202 <--		
FR 1994-8974	A	19940720 <--		
JP 1994-300016	A3	19941202 <--		
OS CASREACT 123:286006				
AB	The title compd. (I) was pred. by treating 4-ClC <sub>6</sub> H <sub>4</sub> COEt with (Me <sub>3</sub> Si) <sub>2</sub> NLi and (CO <sub>2</sub> Et) <sub>2</sub> to give 4-ClC <sub>6</sub> H <sub>4</sub> CH(OLi)CHMeCOCO <sub>2</sub> Et which was cyclocondensed with 2,4-Cl <sub>2</sub> C <sub>6</sub> H <sub>3</sub> NHNH <sub>2</sub> and the product saponified to give 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxylic acid which was amidated by 1-aminopiperidine. It had ED <sub>50</sub> of 0.4mg/kg orally for antagonism of WIN 5521-2-induced hypothermia in mice.			
IT	158681-13-1P 168273-06-1P 169544-42-7P 169544-43-8P 169544-44-9P 169544-45-0P 169544-46-1P			
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of N-piperidino-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide as a cannabinoid receptor antagonist)			

L66	ANSWER 25 OF 25 HCPLUS COPYRIGHT 2002 ACS																																																															
AN	1995:823081 HCPLUS																																																															
DN	123:228179																																																															
TI	Preparation of 1,5-diphenyl-3-pyrazolecarboxamide derivatives with cannabinoid receptor affinity																																																															
IN	Barth, Francis; Casellas, Pierre; Congy, Christian; Martinez, Serge; Rinaldi, Murielle																																																															
PA	SANOFI, Fr.																																																															
SO	Eur. Pat. Appl., 22 pp. CODEN: EPXXDW																																																															
DT	Patent																																																															
LA	French																																																															
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<table border="1"> <thead> <tr> <th>PATENT NO.</th> <th>KIND</th> <th>DATE</th> <th>APPLICATION NO.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>PI EP 658546</td> <td>A1</td> <td>19950621</td> <td>EP 1994-402890</td> <td>19941215 &lt;--</td> </tr> <tr> <td>PI EP 658546</td> <td>B1</td> <td>20010523</td> <td></td> <td></td> </tr> <tr> <td colspan="5">R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE</td> </tr> <tr> <td>FR 2714057</td> <td>A1</td> <td>19950623</td> <td>FR 1993-15221</td> <td>19931217 &lt;--</td> </tr> <tr> <td>FR 2714057</td> <td>B1</td> <td>19960308</td> <td></td> <td></td> </tr> <tr> <td>ES 2159549</td> <td>T3</td> <td>20011016</td> <td>ES 1994-402890</td> <td>19941215 &lt;--</td> </tr> <tr> <td>US 5462960</td> <td>A</td> <td>19951031</td> <td>US 1994-357880</td> <td>19941216 &lt;--</td> </tr> <tr> <td>JP 07324076</td> <td>A2</td> <td>19951212</td> <td>JP 1994-315224</td> <td>19941219 &lt;--</td> </tr> <tr> <td>PRAI FR 1993-15221</td> <td>A</td> <td>19931217 &lt;--</td> <td></td> <td></td> </tr> <tr> <td>OS MARPAT 123:228179</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GI</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	PI EP 658546	A1	19950621	EP 1994-402890	19941215 <--	PI EP 658546	B1	20010523			R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					FR 2714057	A1	19950623	FR 1993-15221	19931217 <--	FR 2714057	B1	19960308			ES 2159549	T3	20011016	ES 1994-402890	19941215 <--	US 5462960	A	19951031	US 1994-357880	19941216 <--	JP 07324076	A2	19951212	JP 1994-315224	19941219 <--	PRAI FR 1993-15221	A	19931217 <--			OS MARPAT 123:228179					GI				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE																																																												
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PRAI FR 1993-15221	A	19931217 <--																																																														
OS MARPAT 123:228179																																																																
GI																																																																



AB The title compds. [I], g2-g6, W2-W6 = Ph, H, Cl, Br, I, alkyl, alkoxy, CF<sub>3</sub>, NO<sub>2</sub>; R1, R4 = H, alkyl; R2 = (un)substituted NH<sub>2</sub>, (un)substituted ammonium] [e.g., N-(1,2,3,6-tetrahydropyridin-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methylpyrazole-3-carboxamide hydrochloride; m.p. 200.degree. (decompn.)], which have cannabinoid receptor affinity (no data), are prep'd.

IT 168272-65-9P 168272-66-0P 168273-09-4P  
 168273-10-7P 168273-11-8P 168273-12-9P  
 168273-13-0P 168273-14-1P 168273-15-2P  
 168273-16-3P 168273-17-4P 168273-18-5P  
 168273-19-6P 168273-20-9P 168273-21-0P  
 168273-22-1P 168273-23-2P 168273-24-3P  
 168273-25-4P 168273-26-5P 168273-27-6P  
 168273-28-7P 168273-29-8P 168273-30-1P  
 168273-31-2P 168273-32-3P 168273-33-4P  
 168273-34-5P 168273-36-7P 168273-37-8P  
 168273-40-3P 168273-41-4P 168273-42-5P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of 1,5-diphenyl-3-pyrazolecarboxamide derivs. with cannabinoid receptor affinity)

IT 168273-06-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of 1,5-diphenyl-3-pyrazolecarboxamide derivs. with cannabinoid receptor affinity from)

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 09:41:29 ON 13 OCT 2002  
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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> fil reg  
FILE 'REGISTRY' ENTERED AT 09:42:09 ON 13 OCT 2002  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

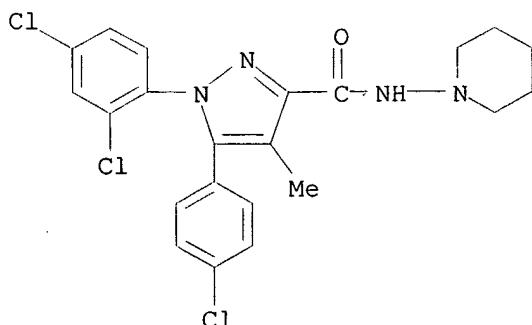
Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d ide can tot 112

L12 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2002 ACS  
RN 190141-47-0 REGISTRY  
CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (E)-2-butenedioate (2:1)  
FS STEREOSEARCH  
MF C22 H21 Cl13 N4 O . 1/2 C4 H4 O4  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

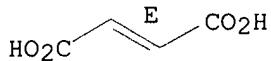
CRN 168273-06-1  
CMF C22 H21 Cl13 N4 O



CM 2

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



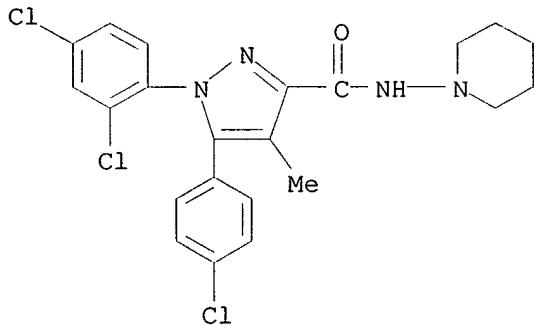
1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

L12 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2002 ACS  
RN 169544-46-1 REGISTRY  
CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, phosphate (1:1) (9CI) (CA INDEX NAME)  
MF C22 H21 C13 N4 O . H3 O4 P  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

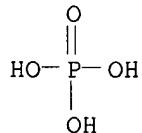
CM 1

CRN 168273-06-1  
CMF C22 H21 C13 N4 O



CM 2

CRN 7664-38-2  
CMF H3 04 P



2 REFERENCES IN FILE CA (1962 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

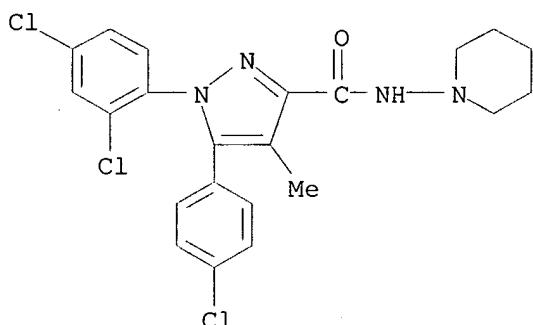
REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2002 ACS  
 RN 169544-45-0 REGISTRY  
 CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)  
 MF C22 H21 Cl3 N4 O . C7 H8 O3 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

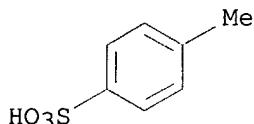
CM 1

CRN 168273-06-1  
 CMF C22 H21 Cl3 N4 O



CM 2

CRN 104-15-4  
 CMF C7 H8 O3 S



2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

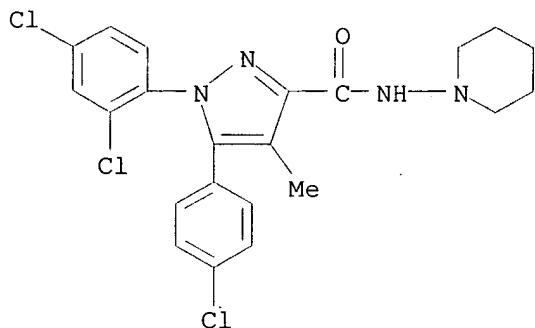
REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2002 ACS  
 RN 169544-44-9 REGISTRY  
 CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, sulfate (1:1) (9CI) (CA INDEX NAME)  
 MF C22 H21 Cl3 N4 O . H2 O4 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

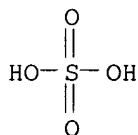
CM 1

CRN 168273-06-1  
 CMF C22 H21 Cl3 N4 O



CM 2

CRN 7664-93-9  
 CMF H2 O4 S



2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2002 ACS  
 RN 169544-43-8 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, (E)-2-butenedioate (1:1)

FS STEREOSEARCH

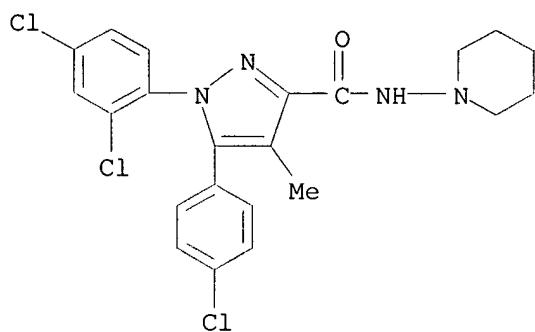
MF C22 H21 Cl3 N4 O . C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 168273-06-1  
 CMF C22 H21 Cl3 N4 O

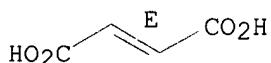


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 123:286006

L12 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 169544-42-7 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

MF C22 H21 Cl13 N4 O . C H4 O3 S

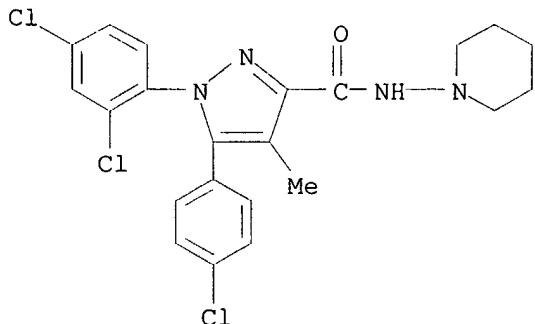
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

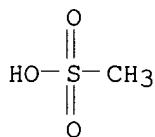
CRN 168273-06-1

CMF C22 H21 Cl13 N4 O



CM 2

CRN 75-75-2  
 CMF C H4 O3 S



2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:5085

REFERENCE 2: 123:286006

L12 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2002 ACS

RN 158681-13-1 REGISTRY

CN 1H-Pyrazole-3-carboxamide, 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-1-piperidinyl-, monohydrochloride (9CI) (CA INDEX NAME)

OTHER NAMES:

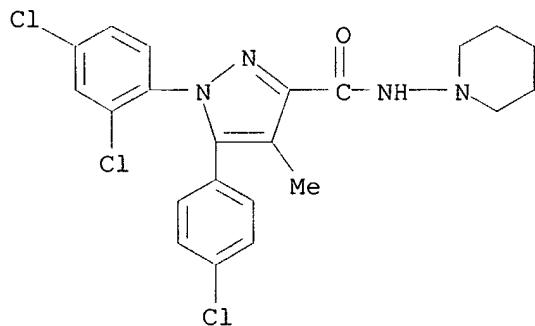
CN SR 141716A

MF C22 H21 Cl13 N4 O . Cl H

SR CA

LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CEN, EMBASE, MEDLINE, PHAR, PROMT, TOXCENTER, USPATFULL

CRN (168273-06-1)



● HCl

170 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 170 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:179571

REFERENCE 2: 137:164054

REFERENCE 3: 137:135279

REFERENCE 4: 137:134880

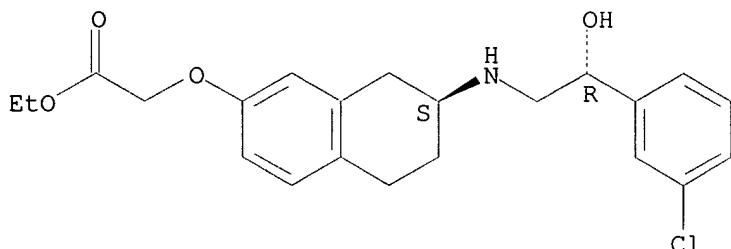
REFERENCE 5: 137:30923

REFERENCE 6: 136:395814  
 REFERENCE 7: 136:350460  
 REFERENCE 8: 136:273092  
 REFERENCE 9: 136:226615  
 REFERENCE 10: 136:129277

=> d 141 ide can tot

L41 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS  
 RN 121524-09-2 REGISTRY  
 CN Acetic acid, [(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetic acid, [7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [R-(R\*,S\*)]-  
 OTHER NAMES:  
 CN SR 58611  
 CN SR 58611A  
 FS STEREOSEARCH  
 MF C22 H26 Cl N O4 . Cl H  
 SR CA  
 LC STN Files: ADISINSIGHT, BIOSIS, BIOTECHNO, CA, CAPLUS, DDFU, DRUGNL,  
 DRUGU, DRUGUPDATES, EMBASE, MEDLINE, PHAR, PROMT, TOXCENTER, USPATFULL  
 CRN (121524-08-1)

Absolute stereochemistry.



● HCl

52 REFERENCES IN FILE CA (1962 TO DATE)  
 52 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:210721  
 REFERENCE 2: 137:195329  
 REFERENCE 3: 136:334973  
 REFERENCE 4: 135:205794  
 REFERENCE 5: 135:103720

REFERENCE 6: 135:40399

REFERENCE 7: 135:29332

REFERENCE 8: 135:435

REFERENCE 9: 134:126373

REFERENCE 10: 133:344976

L41 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2002 ACS

RN 121524-08-1 REGISTRY

CN Acetic acid, [(2S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [R-(R\*,S\*)]-

FS STEREOSEARCH

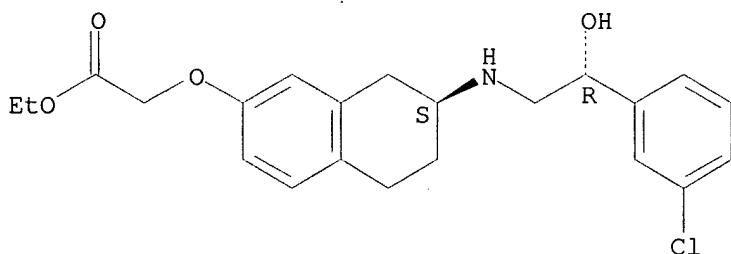
MF C22 H26 Cl N O4

CI COM

SR CA

LC STN Files: ADISINSIGHT, BIOTECHNO, CA, CAPLUS, CASREACT, EMBASE, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

9 REFERENCES IN FILE CA (1962 TO DATE)

9 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:55894

REFERENCE 2: 126:99317

REFERENCE 3: 125:133456

REFERENCE 4: 122:132788

REFERENCE 5: 122:105454

REFERENCE 6: 121:230444

REFERENCE 7: 120:153732

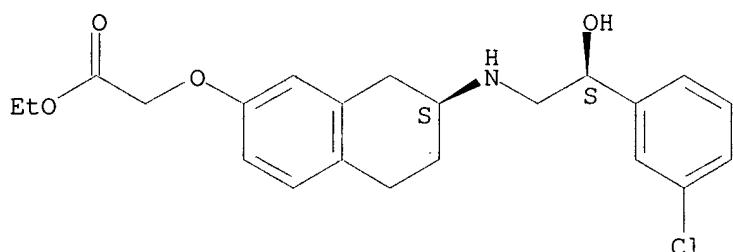
REFERENCE 8: 115:57179

REFERENCE 9: 111:39023

=> d 142 ide can tot

L42 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 135025-88-6 REGISTRY  
 CN Acetic acid, [[7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C22 H26 Cl N O4  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



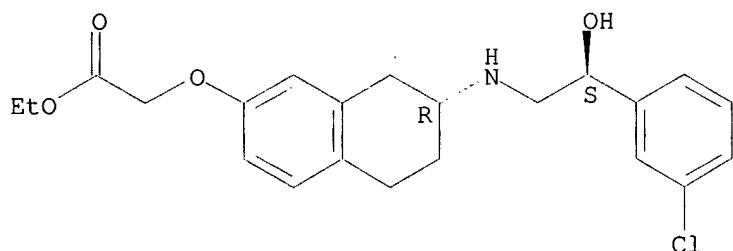
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

L42 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 135025-87-5 REGISTRY  
 CN Acetic acid, [[7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C22 H26 Cl N O4  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

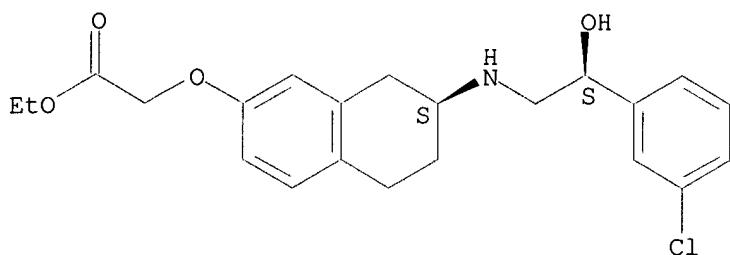
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)





● HCl

5 REFERENCES IN FILE CA (1962 TO DATE)  
 5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 117:163882

REFERENCE 4: 113:165225

REFERENCE 5: 111:39023

L42 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121524-10-5 REGISTRY

CN Acetic acid, [(7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino)-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [R-(R\*,R\*)]-(9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58612A

FS STEREOSEARCH

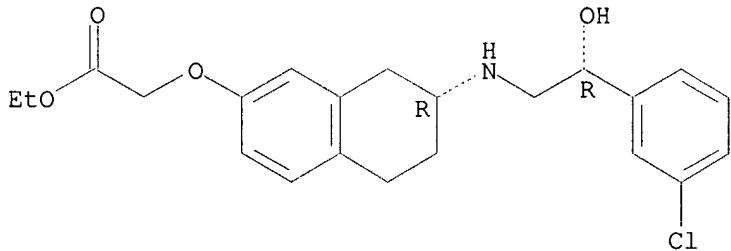
MF C22 H26 Cl N O4 . Cl H

SR CA

LC STN Files: CA, CAPLUS, DDFU, DRUGU, USPATFULL

CRN (121524-07-0)

Absolute stereochemistry.



HCl

5 REFERENCES IN FILE CA (1962 TO DATE)  
 5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 117:163882

REFERENCE 4: 113:165225

REFERENCE 5: 111:39023

L42 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121524-07-0 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

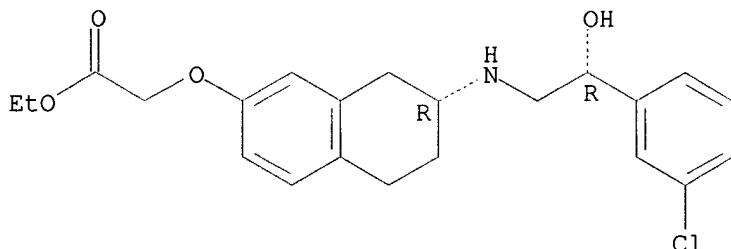
MF C22 H26 Cl N O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 115:57179

REFERENCE 3: 111:39023

L42 ANSWER 7 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-36-9 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R\*,S\*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R\*,S\*)-(-.+-.)-

OTHER NAMES:

CN SR 58538B

FS STEREOSEARCH

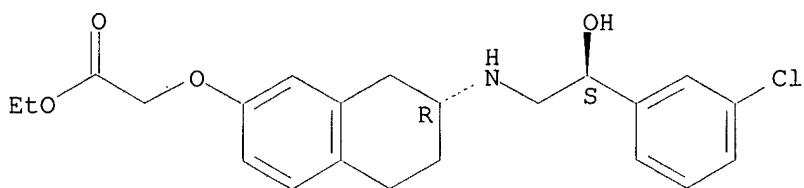
MF C22 H26 Cl N O4 . Cl H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (121489-32-5)

Relative stereochemistry.



● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:146279

REFERENCE 2: 111:39023

L42 ANSWER 8 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 121489-35-8 REGISTRY

CN Acetic acid, [[7-[(2-(3-chlorophenyl)-2-hydroxyethyl)amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,R\*)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[(2-(3-chlorophenyl)-2-hydroxyethyl)amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,R\*)-(.+-.)-, trifluoroacetate (salt)

FS STEREOSEARCH

MF C22 H26 Cl N O4 . C2 H F3 O2

SR CA

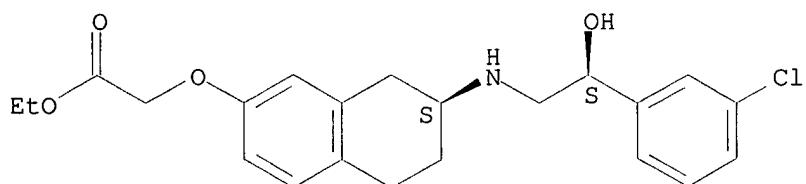
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 121489-34-7

CMF C22 H26 Cl N O4

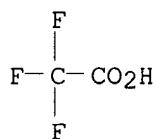
Relative stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39023

L42 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 121489-34-7 REGISTRY  
 CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,R\*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,R\*)-(.+-.)-

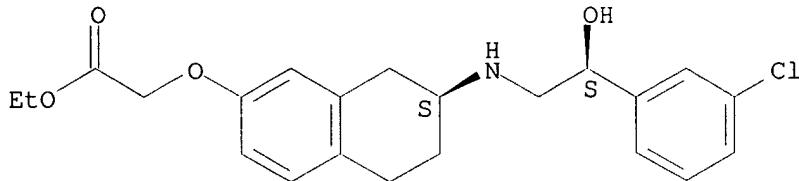
FS STEREOSEARCH

MF C22 H26 Cl N O4

CI COM

SR CA

Relative stereochemistry.



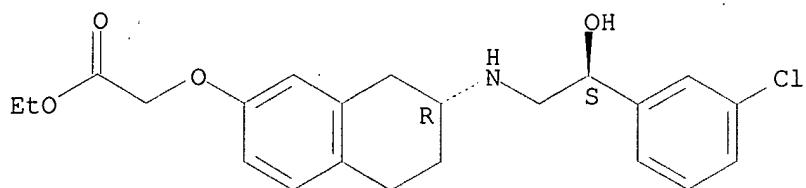
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L42 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 121489-33-6 REGISTRY  
 CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,S\*)-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, (R\*,S\*)-(.+-.)-, trifluoroacetate (salt)  
 FS STEREOSEARCH  
 MF C22 H26 Cl N O4 . C2 H F3 O2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

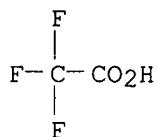
CM 1

CRN 121489-32-5  
 CMF C22 H26 Cl N O4

Relative stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O21 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:39023

L42 ANSWER 11 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 121489-32-5 REGISTRY  
 CN Acetic acid, [{7-[{2-[3-chlorophenyl]-2-hydroxyethyl}amino]-5,6,7,8-tetrahydro-2-naphthalenyl}oxy]-, ethyl ester, (R\*,S\*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [{7-[{2-[3-chlorophenyl]-2-hydroxyethyl}amino]-5,6,7,8-tetrahydro-2-naphthalenyl}oxy]-, ethyl ester, (R\*,S\*)-(-+.-)-

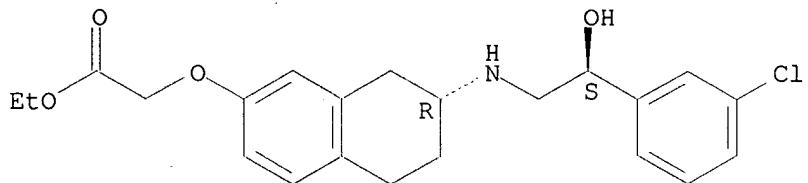
FS STEREOSEARCH

MF C22 H26 Cl N O4

CI COM

SR CA

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L42 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2002 ACS  
 RN 120839-54-5 REGISTRY  
 CN Acetic acid, [{7-[{2-[3-chlorophenyl]-2-hydroxyethyl}amino]-5,6,7,8-tetrahydro-2-naphthalenyl}oxy]-, ethyl ester, hydrochloride, (R\*,R\*)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, (R\*,R\*)-(.+-.)-

OTHER NAMES:

CN SR 58539B

FS STEREOSEARCH

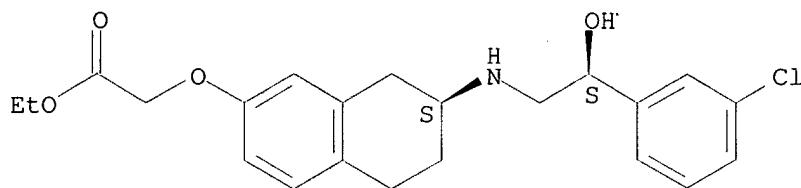
MF C22 H26 Cl N O4 . Cl H

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, EMBASE, USPATFULL

CRN (121489-34-7)

Relative stereochemistry.



● HCl

3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:146279

REFERENCE 2: 111:39023

REFERENCE 3: 110:225302

L42 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2002 ACS

RN 107758-27-0 REGISTRY

CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58380

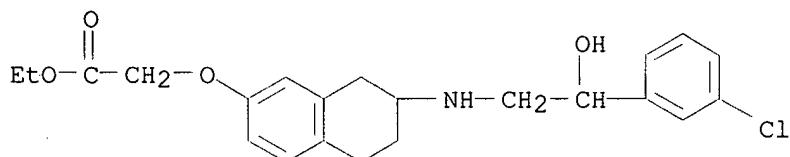
FS 3D CONCORD

MF C22 H26 Cl N O4

CI COM

SR CA

LC STN Files: ADISINSIGHT, CA, CAPLUS, CASREACT, SYNTHLINE, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

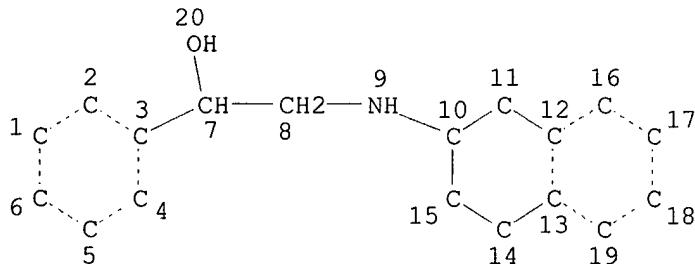
2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 120:153732

REFERENCE 2: 106:156084

=> d sta que 193  
 L85 STR



NODE ATTRIBUTES:

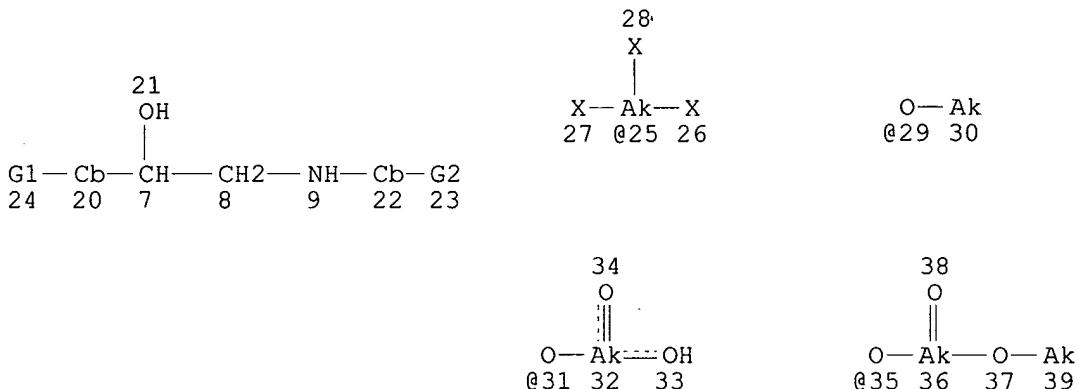
DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L87 375 SEA FILE=REGISTRY SSS FUL L85  
 L88 STR



VAR G1=H/X/AK/25

VAR G2=OH/29/31/35

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 25  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS MCY UNS AT 20  
 GGCAT IS PCY AT 22  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L90 237 SEA FILE=REGISTRY SUB=L87 SSS FUL L88  
 L93 76 SEA FILE=REGISTRY SUB=L90 CSS FUL L88

100.0% PROCESSED 237 ITERATIONS

76 ANSWERS

SEARCH TIME: 00.00.01

=&gt; d his 193-

(FILE 'REGISTRY' ENTERED AT 09:45:36 ON 13 OCT 2002)  
L93 76 S L88 CSS FUL SUB=L90  
SAV L93 JKIM44531D/A  
L94 161 S L90 NOT L93  
L95 61 S L93 NOT L41,L42

FILE 'HCAPLUS' ENTERED AT 10:12:57 ON 13 OCT 2002  
L96 18 S L95  
L97 18 S L96 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
L98 13 S L97 AND L71  
L99 49 S L71,L97,L98

FILE 'REGISTRY' ENTERED AT 10:14:11 ON 13 OCT 2002

=> fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 10:14:26 ON 13 OCT 2002  
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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16  
FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=&gt; d 199 bib abs hitrn retable tot

L99 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
AN 2001:521902 HCAPLUS  
DN 135:103720  
TI Method of reducing nicotine and tobacco craving in mammals  
IN Coffin, Vicki L.; Glue, Paul W.  
PA Schering Corp., USA  
SO U.S., 20 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE  
----- ----- ----- ----- -----

PI US 6262049 B1 20010717 US 1998-178447 19981023 <--  
 US 2001025038 A1 20010927 US 2001-846170 20010501 <--  
 PRAI US 1997-64563P P 19971028 <--  
 US 1998-178447 A3 19981023

AB A method of reducing cravings in a mammal to nicotine or tobacco is disclosed. The method comprises administering to the mammal an effective amt. of a D1/D5 antagonist or a D1/D5 partial agonist alone or in combination with other specified CNS compds.

IT 121524-09-2, SR 58611a

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (method of reducing nicotine and tobacco craving in mammals)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1996			WO 9613257	HCAPLUS
Anon	1997			WO 9746239	HCAPLUS
Anon	1999			WO 9915161	HCAPLUS
Bednar	1995	269	R896	American J of Physio	MEDLINE
Caine, S	1994	270	209	The Journal of Pharm	HCAPLUS
Cervo	1996	731	31	Brain Research	HCAPLUS
Cervo, L	1995	673	242	Brain Research	HCAPLUS
Corrigall	1994	48	817	Pharmacology Biochem	HCAPLUS
Dry, W	1993	10	207	Alcohol	
Dyr				Biological Abstracts	
Gordon, Y	1994		365	European Journal of	
Ng	1994			Medline Abstracts, a	
Nielsen	1985	11	167	European Journal of	
Panocka, I	1995	120	227	Psychopharmacology	HCAPLUS
Paul, A	1993	21		JACC	HCAPLUS
Samochowiec	1995	50	815	Pharmazie	HCAPLUS
Sydney, A	1996	6	1139	Bioorganic & Medicin	

L99 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:743877 HCAPLUS

DN 130:119495

TI Beta-3 adrenergic receptor agonists cause an increase in gastrointestinal transit time in wild-type mice, but not in mice lacking the beta-3 adrenergic receptor

AU Fletcher, Daniel S.; Candelore, Mari Rios; Grujic, Danica; Lowell, Bradford B.; Luell, Silvi; Susulic, Vedrana S.; Macintyre, D. Euan

CS Department of Pharmacology, Merck and Co., Rahway, NJ, USA

SO Journal of Pharmacology and Experimental Therapeutics (1998), 287(2), 720-724

CODEN: JPETAB; ISSN: 0022-3565

PB Lippencott Williams & Wilkins

~

DT Journal

LA English

AB The effects of beta-3 adrenergic receptor (.beta.3-AR) agonists on gastrointestinal (GI) motility, as reported by stomach retention and intestinal transit of radiolabeled charcoal, were compared in wild-type (WT) mice and in transgenic mice lacking .beta.3-AR (.beta.3-AR[KO]) or having .beta.3-AR in white and brown adipose tissue only (.beta.3-AR[WAT + BAT]). After s.c. administration of 3 mg/kg of the selective, rodent specific .beta.3-AR agonists BRL 35135, CL 316,243 or ICI 198,157, WT mice exhibited a significant decrease in the extent of movement of radiotracer through the stomach and intestines, indicative of decreased GI motility. These compds. also caused an increase in plasma glycerol levels in the WT mice, suggesting that increased lipolysis in adipose tissue had been evoked. None of these compds. had an effect on GI motility or evoked lipolysis in the .beta.3-AR[KO] mice. Treatment of WT mice with SR 58611A, a .beta.3-AR agonist that exhibited a relatively lower affinity for rodent .beta.3-AR in vitro, did not affect

GI motility or plasma glycerol levels in WT or  $\beta.3$ [KO] mice when administered s.c. at 3 mg/kg. Clonidine, an alpha-2 adrenergic receptor agonist, used as a pos. control in these GI studies, caused a decrease in GI motility in both WT and  $\beta.3$ -AR[KO] mice. These results are consistent with a postulated role for  $\beta.3$ -AR in regulation of GI motility in the mouse. However, treatment of  $\beta.3$ -AR[WAT + BAT] mice with 3 mg/kg BRL 35135 resulted in elevated plasma glycerol levels, as well as increased stomach retention and decreased intestinal transit of radiotracer. These results suggest that this  $\beta.3$ -AR agonist may exert its effects on the GI tract indirectly, through an unknown signaling mechanism activated by agonism of  $\beta.3$ -AR in adipose tissue.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
( $\beta.3$  adrenergic receptor agonists cause increase in gastrointestinal transit time in wild-type mice but not in mice lacking  $\beta.3$  adrenergic receptor in relation to effect of lipolysis by adipose tissue)

RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Arch, J	1993	13	663	Med Res Rev	HCAPLUS
Arch, J	1984	309	163	Nature	HCAPLUS
Bensaid, M	1993	318	223	FEBS Lett	HCAPLUS
Berkowitz, D	1995	289	223	Eur J Pharmacol	HCAPLUS
Bond, R	1988	95	723	Br J Pharmacol	HCAPLUS
Candelore, M	1996	137	2638	Endocrinology	HCAPLUS
Chang, F	1995	155	457	Acta Physiol Scand	HCAPLUS
Cohen, M	1995	272	446	J Pharmacol Exp Ther	HCAPLUS
Collins, S	1994	8	518	Mol Endocrinol	HCAPLUS
Croci, T	1991	3	273	J Gastrointest Motil	
Croci, T	1988	20	147	Pharmacol Res Commun	HCAPLUS
de Boer, R	1995	116	1945	Br J Pharmacol	HCAPLUS
De Ponti, F	1995	114	1447	Br J Pharmacol	HCAPLUS
De Ponti, F	1996	69	59	Pharmacol Ther	HCAPLUS
Eliasson, B	1995	38	79	Diabetologia	MEDLINE
Emorine, L	1989	245	1118	Science	HCAPLUS
Evans, B	1996	117	210	Br J Pharmacol	HCAPLUS
Giudice, A	1989	44	1411	Life Sci	HCAPLUS
Granneman, J	1991	40	895	Mol Pharmacol	HCAPLUS
Grujic, D	1997	272	17686	J Biol Chem	HCAPLUS
Howe, R	1992	35	1751	J Med Chem	HCAPLUS
Lafontan, M	1993	34	1057	J Lipid Res	HCAPLUS
Landi, M	1993	53	297	Life Sci	
Lezama, E	1996	308	69	Eur J Pharmacol	HCAPLUS
Manara, L	1996	117	435	Br J Pharmacol	HCAPLUS
Manara, L	1995	9	332	Fund Clin Pharmacol	HCAPLUS
Maugeri, S	1994	17	148	J Vet Pharmacol Ther	HCAPLUS
Miller, M	1961	6	211	J Pharmacol Methods	
Muzzin, P	1991	266	24053	J Biol Chem	HCAPLUS
Nahmias, C	1991	10	3721	EMBO J	HCAPLUS
Puig, M	1996	76	A257	Br J Anesthesia	
Spiegelman, B	1996	87	377	Cell	HCAPLUS
Susulic, V	1995	270	29483	J Biol Chem	HCAPLUS
Thollander, M	1996	8	143	Neurogastroenterol M	MEDLINE
van der Vliet, A	1990	255	218	J Pharmacol Exp Ther	HCAPLUS
Yoshida, T	1996	45	787	Metabolism	HCAPLUS

L99 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:557719 HCAPLUS

DN 129:270414

TI Effects of  $\beta.3$ -adrenoceptor agonist SR 58611A on

gastric acid secretion and histamine release in the dog: comparison with ritodrine

AU Bertini, Simone; Coruzzi, Gabriella; Intorre, Luigi; Soldani, Giulio  
 CS Laboratory of Pharmacology, Faculty of Veterinary Medicine, University of Pisa, Pisa, I-56124, Italy  
 SO General Pharmacology (1998), 31(4), 625-631  
 CODEN: GEPHDP; ISSN: 0306-3623  
 PB Elsevier Science Inc.  
 DT Journal  
 LA English  
 AB The involvement of  $\beta$ .3 adrenoceptors in the control of gastric acid secretion and histamine release was investigated in the dog. In conscious dogs, SR 58611A (0.0625-1.0 mg/kg/h IV) dose dependently inhibited gastric acid secretion induced by pentagastrin. Maximal inhibition (40%) was obtained with the dose of 1 mg/kg. Ritodrine (1 mg/kg/h IV) also induced a marked inhibition (85%) of gastric acid secretion stimulated by pentagastrin. On 2-deoxy-d-glucose-stimulated acid secretion, both SR 58611A and ritodrine at 1 mg/kg/h IV showed inhibitory effects. On these expts., ritodrine, but not SR 58611A, significantly reduced plasma gastrin concns. In anesthetized dogs, histamine concns. from gastrosplenic vein increased fivefold after the infusion of pentagastrin. SR 58611A (1 mg/kg/h IV) did not significantly modify the stimulant effect of pentagastrin on histamine release. In contrast, ritodrine (1 mg/kg/h IV) significantly inhibited histamine release induced by pentagastrin. These data suggest that  $\beta$ .3 adrenoceptors may participate in the neg. control of gastric acid secretion in the dog, probably through a histamine-independent mechanism.

IT 121524-09-2, SR 58611A  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 ( $\beta$ .3-adrenoceptor agonist SR 58611A effects on gastric acid secretion and histamine release in the dog in comparison with ritodrine)

L99 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1998:306016 HCAPLUS  
 DN 129:76216  
 TI Influence of  $\beta$ -adrenoceptor agonists on the pulmonary circulation. Effects of a  $\beta$ .3-adrenoceptor antagonist, SR 59230A  
 AU Dumas, Monique; Dumas, Jean-Paul; Bardou, Marc; Rochette, Luc; Advenier, Charles; Giudicelli, Jean-Francois  
 CS Laboratoire de Physiopathologie et de Pharmacologie Cardiovasculaires Experimentales, Faculte de Medecine, Dijon, 21000, Fr.  
 SO European Journal of Pharmacology (1998), 348(2/3), 223-228  
 CODEN: EJPHAZ; ISSN: 0014-2999  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB The aims of this study were (a) to compare in the rat isolated perfused lung prepn., the effects of isoprenaline and of three  $\beta$ .3-adrenoceptors agonists, SR 59104A, [N-[(6-hydroxy-1,2,3,4-tetrahydronaphthalen-(2R)-2yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl], SR 59119A [N-[(7-methoxy-1,2,3,4-tetrahydronaphthalen-(2R)-2yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl] and SR 58611A [ethyl [(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthalen-2-yloxy]acetate-HCl] on hypoxia-induced pulmonary vasoconstriction, and (b) to investigate the potential existence of atypical  $\beta$ -adrenoceptors in these effects. Propranolol (0.1  $\mu$ M) was used to antagonize  $\beta$ .1- and  $\beta$ .2-adrenoceptors whereas SR 59230A, 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-ylamino]-(2S)-2-propanol oxalate (0.3  $\mu$ M) was used to block  $\beta$ .3-adrenoceptors.

Isoprenaline and the three  $\beta$ .3-adrenoceptors agonists caused concn.-dependent relaxations during the pulmonary pressure response. Propranolol and SR 59230A inhibited the relaxant effects of isoprenaline. SR 59230A but not propranolol inhibited those of SR 59104A. Finally, propranolol and SR 59230A failed to oppose SR 59119A- and SR 58611A-induced relaxant effects. In concns.  $\geq 0.1 \mu M$ , SR 59230A caused per se a relaxation of the hypoxic vasoconstricted lung. These results suggest the existence of atypical  $\beta$ -adrenoceptors in the rat pulmonary vessels.

IT 121524-09-2, SR58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) ( $\beta$ .-adrenoceptor agonists and  $\beta$ .3-adrenoceptor antagonist SR 59230A effect on pulmonary circulation)

L99 ANSWER 5 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1998:122129 HCPLUS

DN 128:239539

TI Validity of  $(-)[3H]$ -CGP 12177A as a radioligand for the "putative  $\beta$ .4-adrenoceptor" in rat atrium

AU Sarsiero, Doreen; Molenaar, Peter; Kaumann, Alberto J.

CS Department of Pharmacology, University of Melbourne, Parkville, 3052, Australia

SO British Journal of Pharmacology (1998), 123(3), 371-380

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton Press

DT Journal

LA English

AB We have recently suggested the existence in the heart of a "putative  $\beta$ .4-adrenoceptor" based on the cardiotonist effects of non-conventional partial agonists, compds. that cause cardiotonist effects at greater concns. than those required to block  $\beta$ .1- and  $\beta$ .2-adrenoceptors. We sought to obtain further evidence by establishing and validating a radioligand binding assay for this receptor with  $(-)[3H]$ -CGP 12177A ( $(-)$ -4-(3-tertiarybutylamino-2-hydroxypropoxy) benzimidazol-2-one) in rat atrium. We investigated  $(-)[3H]$ -CGP 12177A for this purpose for two reasons, because it is a non-conventional partial agonist and also because it is a hydrophilic radioligand. Increasing concns. of  $(-)[3H]$ -CGP 12177A, in the absence or presence of  $20 \mu M$   $(-)$ -CGP 12177A to define non-specific binding, resulted in a biphasic satn. isotherm. Low concns. bound to  $\beta$ .1- and  $\beta$ .2-adrenoceptors ( $pK_D 9.4 \pm 0.1$ ,  $B_{max} 26.9 \pm 3.1$  fmol mg $^{-1}$  protein) and higher concns. bound to the "putative  $\beta$ .4-adrenoceptor" ( $pK_D 7.5 \pm 0.1$ ,  $B_{max} 47.7 \pm 4.9$  fmol mg $^{-1}$  protein). In other expts. designed to exclude  $\beta$ .1- and  $\beta$ .2-adrenoceptors,  $(-)[3H]$ -CGP 12177A (1-200 nM) binding in the presence of 500 nM  $(-)$ -propranolol was also saturable ( $pK_D 7.6 \pm 0.1$ ,  $B_{max} 50.8 \pm 7.4$  fmol mg $^{-1}$  protein). The non-conventional partial agonists  $(-)$ -CGP 12177A ( $pK_i 7.3 \pm 0.2$ ),  $(+)$ -cyanopindolol ( $pK_i 7.6 \pm 0.2$ ),  $(-)$ -pindolol ( $pK_i 6.6 \pm 0.1$ ) and  $(+)$ -carazolol ( $pK_i 7.2 \pm 0.2$ ) and the antagonist  $(-)$ -bupranolol ( $pK_i 6.6 \pm 0.2$ ), all competed for  $(-)[3H]$ -CGP 12177A binding in the presence of 500 nM  $(-)$ -propranolol at the "putative  $\beta$ .4-adrenoceptor", with affinities closely similar to potencies and affinities detd. in organ bath studies. The catecholamines competed with  $(-)[3H]$ -CGP 12177A at the "putative  $\beta$ .4-adrenoceptor" in a stereoselective manner,  $(-)$ -noradrenaline ( $pK_{iH} 6.3 \pm 0.3$ ,  $pK_{iL} 3.5 \pm 0.1$ ),  $(-)$ -adrenaline ( $pK_{iH} 6.5 \pm 0.2$ ,  $pK_{iL} 2.9 \pm 0.1$ ),  $(-)$ -isoprenaline ( $pK_{iH} 6.2 \pm 0.5$ ,  $pK_{iL} 3.4 \pm 0.1$ ),  $(+)$ -isoprenaline ( $pK_{iH} < 1.7$ ),  $(-)$ -RO363 ( $(-)$ -(1-(3,4-dimethoxyphenethylamino)-3-(3,4-dihydroxyphenoxy)-2-propranol)oxalate,  $pK_i 5.5 \pm 0.1$ ). The inclusion of guanosine 5-triphosphate (GTP 0.1 mM) had no effect on binding of  $(-)$ -CGP 12177A or  $(-)$ -isoprenaline to the "putative  $\beta$ .4-adrenoceptor". In competition binding studies,  $(-)$ -CGP 12177A competed with  $(-)[3H]$ -CGP 12177A for one receptor state in the

absence (pKi 7.3.+-0.2) or presence of GTP (pKi 7.3.+-0.2). (-)-Isoprenaline competed with (-)-[3H]-CGP 12177A for two states in the absence (pKiH 6.6.+-0.3, pKiL 3.5.+-0.1; % H 25.+-7) or presence of GTP (pKiH 6.2.+-0.5, pKiL 3.4.+-0.1; % H 37.+-6). In contrast, at .beta.1-adrenoceptors, GTP stabilized the low affinity state of the receptor for (-)-isoprenaline. The specificity of binding to the "putative .beta.4-adrenoceptor" was tested with compds. active at other receptors. High concns. of the .beta.3-adrenoceptor agonists, BRL 37344 ((RR + SS)[4-[2-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]phenoxy]acetic acid, 6 .mu.M), SR 58611A (ethyl{(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthyl-2-yloxy}acetate hydrochloride, 6 .mu.M), ZD 2079 ((.+-.)-1-phenyl-2-(2-4-carboxymethylphenoxy)-ethylamino)-ethan-1-ol, 60 .mu.M, CL 316243 (disodium (R,R)-5-[2-[2-(3-chlorophenyl)-2-hydroxyethyl-amino]propyl]-1,3-benzodioxole-2,2-dicarboxylate, 60 .mu.M) and antagonist SR 59230A (3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-ylamino]-2S-2-propanol oxalate, 6 .mu.M) caused less than 22% inhibition of (-)-[3H]-CGP 12177A binding in the presence of 500 nM (-)-propranolol. Histamine (1 mM), atropine (1 .mu.M), phentolamine (10 .mu.M), 5-HT (100 .mu.M) and the 5-HT4 receptor antagonist SB 207710 ((1-butyl-4-piperidinyl)-Me-8-amino-7-iodo-1,4-benzodioxan-5-carboxylate, 10 nM) caused less than 26% inhibition of binding. Non-conventional partial agonists, the antagonist (-)-bupranolol and catecholamines all competed for (-)-[3H]-CGP 12177A binding in the absence of (-)-propranolol at .beta.1-adrenoceptors, with affinities (pKi) ranging from 1.6-3.6 log orders greater than at the "putative .beta.4-adrenoceptor". We have established and validated a radioligand binding assay in rat atrium for the "putative .beta.4-adrenoceptor" which is distinct from .beta.1-, .beta.2- and .beta.3-adrenoceptors. The stereoselective interaction with the catecholamines provides further support for the classification of the receptor as "putative .beta.4-adrenoceptor".

IT 121524-09-2, SR 58611A

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(validity of (-)-[3H]-CGP 12177A as a radioligand for putative .beta.4-adrenoceptor in rat atrium in relation to competitive binding assays with other agonists and antagonists)

L99 ANSWER 6 OF 49 HCPLUS COPYRIGHT 2002 ACS  
AN 1998:87713 HCPLUS  
DN 128:154013  
TI Preparation of 3-(2-pyridylaminoalkyl)-1-phenoxypropanolamines having .beta.3-adrenergic antagonist activity  
IN Badone, Domenico; Cecchi, Roberto; Croci, Tiziano; Guzzi, Umberto; Manara, Luciano  
PA Sanofi, Fr.; Badone, Domenico; Cecchi, Roberto; Croci, Tiziano; Guzzi, Umberto; Manara, Luciano  
SO PCT Int. Appl., 27 pp.  
CODEN: PIXXD2

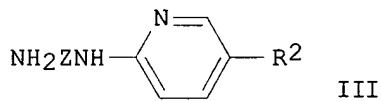
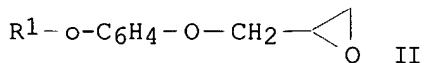
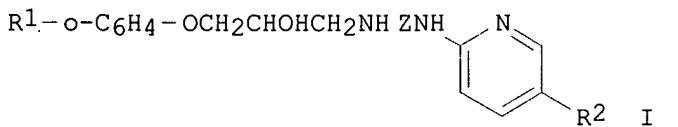
DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9803485	A1	19980129	WO 1997-FR1360	19970722 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

FR 2751646 A1 19980130 FR 1996-9203 19960723 <--  
 FR 2751646 B1 19990122 AU 1997-38529 19970722 <--  
 AU 9738529 A1 19980210 AU 1997-38529 19970722 <--  
 PRAI FR 1996-9203 19960723 <--  
 WO 1997-FR1360 19970722 <--  
 OS CASREACT 128:154013; MARPAT 128:154013  
 GI



AB 1-(2-Alkylphenoxy)-3-(2-pyridylaminoalkylamino)propan-2-ols I (R1 = C3-C7 alkyl or C3-C7 cycloalkyl; R2 = H, electron-accepting group; Z = C2-C3 alkylene), their salts, enantiomers, and pharmaceutical compns. contg. I having .beta.3-adrenergic receptor antagonist activity are disclosed. as is a method for prep. them. Compds. I are prep'd. via reaction of 1,2-epoxypropanes II with N-(2-pyridyl)alkylenediamines III. Thus, reaction of 3-(2-tert-butylphenoxy)-1,2-epoxypropane (prepn. given) with N-(5-nitro-2-pyridinyl)ethylenediamine in refluxing EtOH overnight afforded 1-(2-tert-butylphenoxy)-3-[2-(5-nitro-2-pyridylamino)ethylamino]propan-2-ol, which was converted to its hydrochloride salt. Chlorohydrates of racemic I inhibited the thermogenic effect induced by SR 58611 in an in vivo study of their .beta.3-antagonist activity on brown fat tissue receptors in rat. Pharmaceutically acceptable compns. contg. I are discussed.

L99 ANSWER 7 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1997:806284 HCPLUS  
 DN 128:113275  
 TI Comparison between .beta.3 and .beta.2 adrenoceptor agonists as inhibitors of gastric acid secretion  
 AU Coruzzi, G.; Spaggiari, S.; Bertaccini, G.  
 CS Institute Pharmacology, University Parma, Parma, 43100, Italy  
 SO Journal of Physiology (Paris) (1997), 91(3-5), 241-246  
 CODEN: JHYSEM; ISSN: 0928-4257  
 PB Editions Scientifiques et Medicales Elsevier  
 DT Journal  
 LA English  
 AB In order to investigate the role of .beta.3 adrenoceptors in the regulation of gastric acid secretion we studied the effects of compd. SR58611A (a selective agonist for atypical .beta. adrenoceptors), alone or in combination with .beta.-adrenoceptor antagonists, in the gastric fistula of a conscious cat. The effects of SR58611A were compared with those of clenbuterol, a selective agonist for .beta.2 adrenoceptors. I.v. infusion of SR58611A (0.3-3 .mu.mol/kg/h) caused a dose-dependent, but partial, inhibition of the acid secretory response to 2-deoxy-D-glucose 100 mg/kg i.v., max. effect not exceeding 40%. Clenbuterol (0.03-0.1 .mu.mol/kg/h) caused a similar effect (max.

inhibition about 50%) at doses approx. 30 times lower. The acid secretion induced by the histamine H<sub>2</sub>-receptor agonist dimaprit (1 .mu.mol/kg/h) was minimally affected by both .beta. adrenoceptor agonists. The inhibitory effect of **SR58611A** (3 .mu.mol/kg/h) on 2-deoxy-D-glucose-induced acid secretion was not modified by pretreatment with the non-selective .beta.1- and .beta.2-adrenoceptor blocker propranolol, administered at doses (1.5 .mu.mol/kg i.v.) that completely blocked the inhibitory effect of clenbuterol (0.1 .mu.mol/kg/h). In contrast, bupranolol (10 .mu.mol/kg i.v.) (a drug endowed with .beta.3 antagonistic properties) prevented the inhibitory effects of both **SR58611A** and clenbuterol. The present data provide functional evidence that, besides .beta.2-, also .beta.3-adrenoceptors can have neg. effects on gastric acid secretion, particularly when it is stimulated by indirect stimuli, like 2-deoxy-D-glucose. This gastric antisecretory activity may represent an addnl. mechanism for the physio-pharmacol. control of gastric acid secretion.

IT 121524-09-2, **SR58611A**

RL: **BAC (Biological activity or effector, except adverse); BSU**  
 (Biological study, unclassified); BIOL (Biological study)  
 (comparison between .beta.3 and .beta.2 adrenoceptor agonists as  
 inhibitors of gastric acid secretion)

L99 ANSWER 8 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1997:751676 HCPLUS

DN 128:84320

TI Lipolytic effects of conventional .beta.3-adrenoceptor agonists and of CGP 12,177 in rat and human fat cells: preliminary pharmacological evidence for a putative .beta.4-adrenoceptor

AU Galitzky, Jean; Langin, Dominique; Verwaerde, Patrick; Montastruc, Jean-Louis; Lafontan, Max; Berlan, Michel

CS Laboratoire de Pharmacologie Medicale et Clinique, Unite 317 Institut National de la Sante et de la Recherche Medicale, Faculte de Medecine, Universite Paul Sabatier, Toulouse, 31073, Fr.

SO British Journal of Pharmacology (1997), 122(6), 1244-1250  
 CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton Press

DT Journal

LA English

AB The nature of rat and human fat cell .beta.3-adrenoceptors was investigated by studying the effects of the new .beta.3-adrenoceptor selective antagonist, SR 59,230A, on lipolysis induced by the conventional .beta.3-adrenoceptor agonists, CL 316,243 and **SR 58,611A**, and by the non-conventional partial .beta.3-adrenoceptor agonist CGP 12,177 (a potent .beta.1- and .beta.2-adrenoceptor antagonist with partial .beta.3-adrenoceptor agonist property). In rat fat cells, the rank order of potency of agonists was: CL 316,243 > isoprenaline > **SR 58,611A** > CGP 12,177. The three former agents were full agonists whereas CGP 12,177 was a partial agonist (intrinsic activity of 0.70). In human fat cells, the lipolytic effect of CGP 12,177 reached 25 % of isoprenaline effect. CL 316,243 was a poor inducer of lipolysis and **SR 58,611A** was ineffective. In rat fat cells, lipolysis induced by CL 316,243 and **SR 58,611A** was competitively antagonized by SR 59,230A. Schild plots were linear with pA<sub>2</sub> values of 6.89 and 6.37, resp. Conversely, 0.1, 0.5 and 1 .mu.M SR 59,230A did not modify the concn.-response curve of CGP 12,177. A rightward shift of the curve was however obsd. with 10 and 100 .mu.M of SR 59,230A. The apparent pA<sub>2</sub> value was 5.65. The non-selective .beta.-adrenergic antagonist, bupranolol, competitively displaced the concn.-response curve of CGP 12,177 and CL 316,243. Schild plots were linear with pA<sub>2</sub> values of 6.70 and 7.59, resp. CL316,243-mediated lipolytic effect was not antagonized by CGP 20,712A. In human fat cells, CGP 12,177-mediated lipolytic effect was antagonized by bupranolol and CGP 20,712A. SR 59,230A (0.1, 1 and 10 .mu.M) did not

modify the concn.-response curve of CGP 12,177. A rightward shift was however obsd. at 100  $\mu$ M leading to an apparent pA2 value of 4.32. The results suggest that the non-conventional partial agonist CGP 12,177 can activate lipolysis in fat cells through the interaction with a  $\beta$ -adrenoceptor pharmacol. distinct from the  $\beta$ .3-adrenoceptor, i.e. through a putative  $\beta$ .4-adrenoceptor. They suggest that the two subtypes coexist in rat fat cells whereas only the putative  $\beta$ .4-adrenoceptor mediates lipolytic effect of CGP 12,177 in human fat cells.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (lipolytic effects of conventional  $\beta$ .3-adrenoceptor agonists and of CGP 12,177 in rat and human fat cells and evidence for a putative  $\beta$ .4-adrenoceptor)

L99 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:567066 HCAPLUS

DN 127:275950

TI Characterization of a novel iodocyanopindolol and SM-11044 binding protein, which may mediate relaxation of depolarized rat colon tonus

AU Sugasawa, Toshinari; Matsuzaki-Fujita, Masago; Guillaume, Jean-Luc; Camoin, Luc; Morooka, Shigeaki; Strosberg, A. Donny

CS Institut Cochin de Genetique Moleculaire, CNRS-UPR 0415 and Universite Paris VII, Paris, 75014, Fr.

SO Journal of Biological Chemistry (1997), 272(34), 21244-21252

CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

AB Studies under blockade of  $\alpha$ -,  $\beta$ .1-, and  $\beta$ .2-adrenoreceptors revealed a good correlation between the responses of rat colon relaxation of depolarized tonus and of rat adipocyte lipolysis elicited by catecholamines or BRL-37344, a selective  $\beta$ .3-adrenoreceptor agonist, suggesting  $\beta$ .3-adrenoreceptor stimulation. In contrast, SM-11044, a nonselective  $\beta$ -adrenoreceptor agonist, stimulated colon relaxation more efficiently than lipolysis; its effects were differently antagonized by cyanopindolol with pA2 values of 8.31 in colon and of 7.32 in adipocytes. Binding studies in rat colon smooth muscle membranes using [ $^{125}$ I]iodocyanopindolol under blockade of adrenaline and serotonin receptors revealed the existence of a single class of sites ( $K_d$  = 11.0 nM,  $B_{max}$  = 716.7 fmol/mg protein). The specific binding was saturable and reversible and was displaced by SM-11044 but not by BRL-37344, isoproterenol, noradrenaline, adrenaline, serotonin, nor dopamine. This binding site was photoaffinity labeled using [ $^{125}$ I]iodocyanopindolol-diazirine. The labeling was prevented by SM-11044 but not by BRL-37344. The amino-terminal amino acid sequences of the high performance liq. chromatog.-purified peptides generated by enzymic and chem. cleavages of the affinity labeled 34-kDa protein confirmed that the novel iodocyanopindolol or SM-11044 binding protein of rat colon smooth muscle membranes is different from known adrenaline, serotonin, or dopamine receptors. Its functional role might include the relaxation of depolarized colon.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (adrenoreceptor agonist effects on colon smooth muscle relaxation and white adipocyte lipolysis and characterization of iodocyanopindolol-binding protein which mediates adrenoreceptor-independent relaxation in colon smooth muscle)

L99 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:475527 HCAPLUS

DN 127:214919  
 TI The .beta.3-adrenoceptor agonist **SR58611A** inhibits gastric acid secretion in the conscious cat  
 AU Coruzzi, Gabrieella; Bertaccini, G.  
 CS Institute of Pharmacology, University of Parma, Parma, I-43100, Italy  
 SO Naunyn-Schmiedeberg's Archives of Pharmacology (1997), 356(2), 263-265  
 CODEN: NSAPCC; ISSN: 0028-1298  
 PB Springer  
 DT Journal  
 LA English  
 AB The effect of the .beta.3-adrenoceptor agonist [N-((2S)-7-ethoxycarbonylmethoxyl-1,2,3,4-tetrahydronaphth-2-yl) (2R)-2-(3-chlorophenyl)-2-hydroxyethanamine hydrochloride] (**SR58611A**) on gastric acid secretion was investigated in conscious cats with a gastric fistula. The i.v. infusion of **SR58611A** (0.3-3 .mu.mol/kg/h) caused a dose-dependent inhibition of the acid secretion stimulated by 2-deoxy-D-glucose (2DG), with a max. redn. by 45%. The secretory effect of the histamine H<sub>2</sub>-receptor agonist dimaprit only tended to be reduced by **SR58611A** (3 .mu.mol/kg/h). The inhibitory effect of **SR58611A** was not modified by the non-selective .beta.1- and .beta.2-adrenoceptor antagonist propranolol (1.5 .mu.mol/kg i.v.), but it was prevented by bupranolol (10 .mu.mol/kg i.v.), a drug endowed with .beta.3-antagonistic properties. Both antagonists blocked the inhibitory effect of the .beta.2-adrenoceptor agonist clenbuterol (0.1 .mu.mol/kg/h) on 2DG-induced acid secretion. These findings suggest that compd. **SR58611A** inhibits gastric acid secretion in the conscious cat through activation of .beta.3-adrenoceptors insensitive to propranolol.  
 IT 121524-09-2, **SR58611A**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (.beta.3-adrenoceptor agonist **SR58611A** inhibition of gastric acid secretion in conscious cat, and comparison with .beta.2-adrenoceptor agonist clenbuterol)

L99 ANSWER 11 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1997:433633 HCPLUS  
 DN 127:55894  
 TI Stable freeze-dried pharmaceutical formulation containing mannitol and alanine  
 IN Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe  
 PA Sanofi, Fr.; Bouloumie, Colette; Breul, Thierry; Colliere, Laurence; Faure, Philippe  
 SO PCT Int. Appl., 43 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9717064	A1	19970515	WO 1996-FR1706	19961030 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	FR 2740686	A1	19970509	FR 1995-13022	19951103 <--
	FR 2740686	B1	19980116		
	CA 2234140	AA	19970515	CA 1996-2234140	19961030 <--

AU 9674990	A1	19970529	AU 1996-74990	19961030 <--
AU 713383	B2	19991202		
EP 858325	A1	19980819	EP 1996-937367	19961030 <--
EP 858325	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1203527	A	19981230	CN 1996-198786	19961030 <--
BR 9611367	A	19990223	BR 1996-11367	19961030 <--
JP 11507945	T2	19990713	JP 1996-517912	19961030 <--
CZ 287178	B6	20001011	CZ 1998-1231	19961030 <--
IL 124214	A1	20010128	IL 1996-124214	19961030 <--
RU 2163801	C2	20010310	RU 1998-110638	19961030 <--
AT 221374	E	20020815	AT 1996-937367	19961030 <--
ZA 9609176	A	19980430	ZA 1996-9176	19961031 <--
TW 442295	B	20010623	TW 1996-85114410	19961122 <--
NO 9801967	A	19980630	NO 1998-1967	19980430 <--
US 6284277	B1	20010904	US 1998-66387	19981209 <--
PRAI	FR 1995-13022	A	19951103	<--
	WO 1996-FR1706	W	19961030	<--
AB	A pharmaceutically acceptable freeze-dried formulation consisting of an amorphous phase and a cryst. phase and including at least one non-protein active principle is disclosed. The formulation is characterized in that it contains mannitol and alanine in a ratio R of 0.1-1, where R is the wt. of mannitol over the wt. of alanine. A free-dried pharmaceutical contained SR 57746A 0.44, alanine 72.0, mannitol 36.0, citric acid 30.8, and Polysorbate-80 4.0 mg.			
IT	121524-08-1			
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (stable freeze-dried pharmaceutical formulation contg. mannitol and alanine)			

L99	ANSWER 12 OF 49 HCPLUS COPYRIGHT 2002 ACS
AN	1997:349486 HCPLUS
DN	127:61038
TI	Carboxyl-promoted enhancement of selectivity for the $\beta$ .3 adrenergic receptor. Selectivity is enhanced at the level of receptor binding
AU	Sher, Philip M.; Fisher, Liesl G.; Skwish, Stephen; Michel, Inge M.; Seiler, Steven M.; Washburn, William N.; Dickinson, Kenneth E. J.
CS	Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ, 08543-4000, USA
SO	Medicinal Chemistry Research (1997), 7(2), 109-115
	CODEN: MCREEB; ISSN: 1054-2523
PB	Birkhaeuser
DT	Journal
LA	English
AB	Four carboxyl-contg., selective $\beta$ .3 adrenergic agonists and their ester or amide derivs. were evaluated for their ability to bind to human $\beta$ .1, $\beta$ .2, and $\beta$ .3 adrenergic receptors. Stimulatory effects on the $\beta$ .3 adrenergic receptor were also measured. The authors conclude that carboxyl-derived $\beta$ .3 functional selectivity likely results, at least in part, from the effect of the carboxyl on binding selectivity.
IT	121524-09-2, SR 58611A 191533-25-2, SR 58878
	RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process) (carboxyl-promoted enhancement of selectivity for $\beta$ .3 adrenergic receptor)

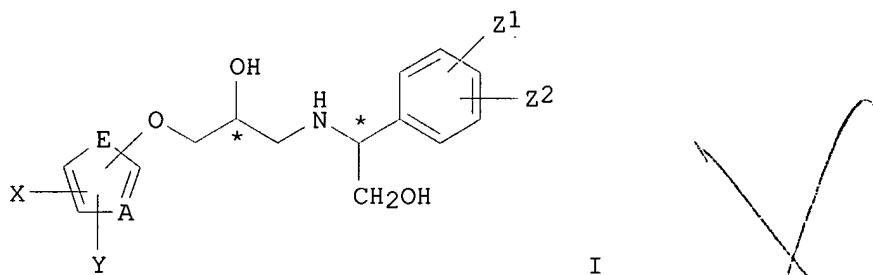
L99	ANSWER 13 OF 49 HCPLUS COPYRIGHT 2002 ACS
AN	1997:93789 HCPLUS
DN	126:99317

TI Use of beta3-adrenergic agonists for inducing the release of  
 glucagon-like-peptide  
 IN Bouloux, Cyril Jacques; Manara, Luciano; Bloom, Stephen Robert  
 PA Sanofi, Fr.  
 SO Fr. Demande, 9 pp.  
 CODEN: FRXXBL  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2732894	A1	19961018	FR 1995-4448	19950413 <--
	FR 2732894	B1	19970704		
	FR 2734482	A1	19961129	FR 1995-12694	19951027 <--
	FR 2734482	B1	19970814		
	BE 1009698	A3	19970701	BE 1996-294	19960409 <--
	IT 1298492	B1	20000110	IT 1996-TO284	19960412 <--
PRAI	FR 1995-4448	A	19950413 <--		
	FR 1995-12694	A	19951027 <--		
AB	Beta3 adrenergic agonists are useful for inducing the release of glucagon-like-peptide. These agonists are administered at 0.01-30 mg/kg body wt. in different dosage forms (no data).				
IT	107758-23-6 107758-43-0 121524-08-1 160696-89-9 185953-96-2				
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (beta3-adrenergic agonists for inducing release of glucagon-like-peptide)				

L99 ANSWER 14 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1996:758896 HCPLUS  
 DN 126:18641  
 TI Preparation of novel aryloxypropanolamino(phenyl)propanol compounds as intestinal motility modulating agents  
 IN Ohno, Norio; Hiratsuka, Kozo; Takenawa, Noriko  
 PA Tokyo Tanabe Company Limited, Japan  
 SO PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9632369	A1	19961017	WO 1996-JP1024	19960412 <--
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9652894	A1	19961030	AU 1996-52894	19960412 <--	
PRAI	JP 1995-89706		19950414 <--		
	WO 1996-JP1024		19960412 <--		
OS	MARPAT 126:18641				
GI					



AB The title compds. [I; A = CH, N; E = CH:CH, S; X, Y = H, halo, Cl-4 alkoxy (un)substituted Cl-4 alkoxy, Cl-4 alkyl or alkenyl; or X and Y combine to form CH:CH2CH:CH, NHCH:CH; Z1, Z2 = H, halo, (un)substituted Cl-4 alkoxy] and salts thereof are prep'd. I are useful as active ingredients for controlling intestinal movements. Thus Et (S)-4-(2-amino-3-hydroxy)propylphenoxyacetate hydrochloride (prepn. given) was refluxed with (2S)-glycidyl Ph ether in 1N caustic soda-EtOH to give 59% Et (S,S)-4-[2-[3-phenoxy-2-hydroxy)propyl]amino-3-hydroxy]propylphenoxyacetate (II). II in vitro showed EC50 of 28 nM for suppressing rat intestinal movements vs. 14 nM of ref. compd.

**SR58611A.**

IT **121524-09-2P, SR58611A**

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)**

(prepn. of novel aryloxypropanolamino(phenyl)propanol compds. as intestinal motility modulating agents)

L99 ANSWER 15 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1996:530176 HCPLUS

DN 125:186459

TI Differences between the third cardiac .beta.-adrenoceptor and the colonic .beta.3-adrenoceptor in the rat

AU Kaumann, Alberto J.; Molenaar, Peter

CS Dep. Pharmacol., Univ. Melbourne, Victoria, 3052, Australia

SO British Journal of Pharmacology (1996), 118(8), 2085-2098

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA English

AB The heart of several species including man contains atypical .beta.-adrenoceptors, in addn. to coexisting .beta.1- and .beta.2-adrenoceptors. We now asked the question whether or not the third cardiac .beta.-adrenoceptor is identical to the putative .beta.3-adrenoceptor. We compared the properties of the third cardiac .beta.-adrenoceptor with those of .beta.3-adrenoceptors in isolated tissues of the rat. To study the third cardiac .beta.-adrenoceptor we used spontaneously beating right atria, paced left atria and paced left ventricular papillary muscles. As a likely model for putative .beta.3-adrenoceptors we studied atypical .beta.-adrenoceptors of the colonic longitudinal muscle precontracted with 30 mM KCl. We used .beta.3-adrenoceptor-selective agonists, antagonists and non-conventional partial agonists (i.e., high-affinity blockers of both .beta.1- and B2-adrenoceptors known to exert also stimulant effects through .beta.3-adrenoceptors). The non-conventional partial agonist (-)-CGP 12177 caused pos. chronotropic effects in right atria (pD2 = 7.3) and pos. inotropic effects in left atria (pD2 = 7.5). The stimulant effects of (-)-CGP 12177 were resistant to blockade by 200 nM-2 .mu.M (-)-propranolol

and 3  $\mu$ M ICI 118551 (a  $\beta$ .2-selective antagonist) but antagonized by 1  $\mu$ M (-)-bupranolol (pKB = 6.4-6.8), 3  $\mu$ M CGP 20712A (a  $\beta$ .1-selective antagonist) (pKB = 6.3-6.4) and 6.6  $\mu$ M SR 59230A (a  $\beta$ .3-selective antagonist, pKB = 5.1-5.4). The non-conventional partial agonist cyanopindolol caused pos. chronotropic effects in right atria (pK2 = 7.7) and pos. inotropic effects in left atria (pD2 = 7.1). The stimulant effects of cyanopindolol were resistant to blockade by 200 nM (-)-propranolol but antagonized by 1  $\mu$ M (-)-bupranolol (pKB = 6.8-7.1). Neither (-)-CGP 12177 nor cyanopindolol caused stimulant effects in papillary muscles at concns. between 0.2 nM and 20  $\mu$ M. In the presence of 200 nM (-)-propranolol, the  $\beta$ .3-adrenoceptor-selective agonists BRL 37344 (6  $\mu$ M), SR 58611A (6  $\mu$ M), ZD 2079 (60  $\mu$ M) and CL 31643 (60  $\mu$ M) did not cause stimulant effects or modify the potency and efficacy of the effects of (-)-CGP 12177 in right and left atria. The combination of 2  $\mu$ M (-)-propranolol and 2  $\mu$ M (-)-noradrenaline did not modify the chronotropic potency and efficacy of (-)-CGP 12177 compared to the potency and efficacy in the presence of 2  $\mu$ M (-)-propranolol alone. (-)-CGP 12177 relaxed the colon with a pD2 of 6.9 and max. effect of 55% compared to (-)-isoprenaline. The relaxant effects of (-)-CGP 12177 were resistant to blockade by 200 nM (-)-propranolol, 3  $\mu$ M CGP 20712A, 3  $\mu$ M ICI 118551 but blocked by 2  $\mu$ M (-)-propranolol (pKB = 6.0), 1  $\mu$ M (-)-bupranolol (pKB = 6.4) and 3  $\mu$ M SR 59230A (pKB = 6.3). In the presence of 200 nM (-)-propranolol, (-)-CGP 12177 (20  $\mu$ M) antagonized surmountably the relaxant effects of BRL 37344 (pKp = 7.3), (-)-noradrenaline (pKp = 7.0), and CL 316243 (pKp = 7.0). Cyanopindolol in the presence of 200 nM (-)-propranolol relaxed the colon with a pD2 of 7.0 and a max. effect of 40% compared to (-)-isoprenaline. As expected from a partial agonist, cyanopindolol antagonized the relaxant effects of both BRL 37344 and CL 316243 with a pKp = 7.6 and (-)-noradrenaline with a pKp = 7.4. The following  $\beta$ .3-adrenoceptor-selective agonists were potent colonic relaxants (pD2 values between parentheses): BRL 37344 (9.1), ZD 2079 (7.0), CL 316243 (9.0) and SR 58611A (8.2). The relaxant effects of these agonists were only marginally affected by 200 nM (-)-propranolol, not blocked by 3  $\mu$ M CGP 20712A or 3  $\mu$ M ICI 118551, and blocked by SR 59230A 3  $\mu$ M (pKB = 6.9-7.5), 1  $\mu$ M (-)-bupranolol (pKB = 6.2-6.4) and 2  $\mu$ M (-)-propranolol (pKB = 6.3-6.5). The colonic relaxation caused by the nanomolar concns. of the  $\beta$ .3-adrenoceptor-selective agonists and the non-conventional partial agonists (-)-CGP 12177 and cyanopindolol and their relative resistance to blockade by antagonists with high affinity for  $\beta$ .1- and  $\beta$ .2-adrenoceptors but blockade by the  $\beta$ .3-adrenoceptor selective SR 59230A agree with the hypothesis that the receptors involved are  $\beta$ .3-adrenoceptors. The failure of micromolar concns. of  $\beta$ .3-adrenoceptor-selective agonists to produce cardiac stimulation or affect the cardiotonic effects of (-)-CGP 12177 is inconsistent with the hypothesis that the third cardiac  $\beta$ .adrenoceptor is  $\beta$ .3. Addnl., the selective blockade of the colonic putative  $\beta$ .3-adrenoceptor compared to the third cardiac  $\beta$ .adrenoceptor by SR 59230A, as well as the blockade of cardiac but not colonic receptors by CGP 20712A is also inconsistent with an identical putative  $\beta$ .3-adrenoceptor in colon and heart. We conclude that in the rat the third cardiac  $\beta$ .adrenoceptor is different from the colonic  $\beta$ .3-adrenoceptor.

IT 121524-09-2, SR 58611A  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (pharmacol. characterization indicates that rat third cardiac  $\beta$ .adrenoceptor is different than colonic  $\beta$ .3-adrenoceptor)

AU Gauthier, Chantal; Tavernier, Genevieve; Charpentier, Flavien; Langin, Dominique; Le Marec, Herve  
 CS Fac. Sci. Techniques, Univ. Nantes, Nantes, 44035, Fr.  
 SO Journal of Clinical Investigation (1996), 98(2), 556-562  
 CODEN: JCINAO; ISSN: 0021-9738  
 PB Rockefeller University Press  
 DT Journal  
 LA English  
 AB .beta.3-Adrenoceptors are involved in metab., gut relaxation, and vascular vasodilation. However, their existence and role in the human heart have not been documented. We investigated the effects of several .beta.-adrenoceptor agonists and antagonists on the mech. properties of ventricular endomyocardial biopsies. In the presence of nadolol, a .beta.1 and .beta.2-adrenoceptor antagonist, isoprenaline produced consistent neg. inotropic effects. Similar neg. inotropic effects also resulted from the action of .beta.3-adrenoceptor agonists with an order of potency: BRL 37344 > SR 58611 .apprxeq. CL 316243 > CGP 12177. The dose-response curve to BRL 37344-decreasing myocardial contractility was not modified by pretreatment with nadolol, but was shifted to the right by bupranolol, a nonselective .beta.-adrenoceptor antagonist. .beta.3-Adrenoceptor agonists also induced a redn. in the amplitude and an acceleration in the repolarization phase of the human action potential. .beta.3-Adrenoceptor transcripts were detected in human ventricle by a polymerase chain reaction assay. These results indicate that: (a) .beta.3-adrenoceptors are present and functional in the human heart; and (b) these receptors are responsible for the unexpected neg. inotropic effects of catecholamines and may be involved in pathophysiol. mechanisms leading to heart failure.

IT 121524-08-1, SR 58611  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (.beta.3-adrenoceptor agonist neg. inotropic activity in human heart)

L99 ANSWER 17 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1996:343723 HCPLUS  
 DN 125:75996  
 TI Effects of several putative .beta.3-adrenoceptor agonists on lipolysis in human omental adipocytes  
 AU Hoffstedt, J.; Loennqvist, F.; Shimizu, M.; Blaak, E.; Arner, P.  
 CS Department of Medicine, Huddinge University Hospital, Huddinge, S-14186, Swed.  
 SO International Journal of Obesity (1996), 20(5), 428-434  
 CODEN: IJOBDP; ISSN: 0307-0565  
 PB Stockton  
 DT Journal  
 LA English  
 AB Atypical .beta.3-adrenoceptor agonists have attained an increasing interest as potential drugs against obesity and diabetes. However, their pharmacol. actions on the native, human .beta.3-adrenoceptor are not well defined. In the present study, the lipolytic effects of several putative .beta.3-adrenoceptor agonists were investigated in human omental adipocytes. CL 316 243 and CGP 12177 had selective partial .beta.3-agonist effects (pD2 about 4 and 8, resp.); the latter drug is a .beta.1-/ .beta.2-adrenoceptor blocker in addn. to its .beta.3-adrenoceptor agonist activity. BRL 37344 and SM 11044 were also partial agonists, but with significant .beta.1 - and/or .beta.2-adrenoceptor agonist properties. Bucindolol, ZD 2079, ICI D7114 and SR 58611A were ineffective as lipolytic drugs. In addn., ICI D7114 was a non-selective .beta.1-/ .beta.2-/ .beta.3-adrenoceptor antagonist in human adipocytes. None of the .beta.3-adrenoceptor agonists tested is an ideal drug for therapeutic use in man (i.e. regarded as a selective and full agonist with high receptor potency). Only CL 316 243 may have a potential therapeutic role, although the potency is very low. CGP 12177 is useful as a ref.

substance for human in vitro studies.

IT 121524-09-2, SR 58611A  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (putative .beta.3-adrenoceptor agonists effect on lipolysis in human  
 omental adipocytes in relation to obesity treatment)

L99 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1996:94531 HCAPLUS  
 DN 124:219871  
 TI Functional identification of rat atypical .beta.-adrenoceptors by the  
 first .beta.3-selective antagonists, aryloxypropanolaminotetralins  
 AU Manara, Luciano; Badone, Domenico; Baroni, Marco; Boccardi, Giovanni;  
 Cecchi, Roberto; Croci, Tiziano; Giudice, Antonina; Guzzi, Umberto; Landi,  
 Marco; et al.  
 CS Research Centre Sanofi Midy, Milan, 20137, Italy  
 SO British Journal of Pharmacology (1996), 117(3), 435-42  
 CODEN: BJPCBM; ISSN: 0007-1188  
 PB Stockton  
 DT Journal  
 LA English  
 AB We have assessed the relative abilities of compds. belonging to the new  
 aryloxypropanolaminotetralin (APAT) class and of the ref.  
 .beta.-adrenoceptor-blocking agent, alprenolol, to antagonize functional  
 responses in vitro and in vivo involving atypical (.beta.3) or  
 conventional (.beta.1 and .beta.2) .beta.-adrenoceptors. The range of pA2  
 values for three representative APATs against inhibition of spontaneous  
 motility in the rat isolated colon by the selective .beta.3-adrenoceptor  
 agonist, SR 58611A (8.1-8.8), was well above similarly  
 calcd. values for non-competitive antagonism of guinea-pig trachea  
 relaxation by salbutamol (.beta.2, 6.5-6.9) and the atrial chronotropic  
 response by isoprenaline (.beta.1, 6.7-7.3). Alprenolol, however, was  
 substantially more potent in antagonizing atrial (pA2, 8.2) and tracheal  
 (pA2, 8.9) responses than SR 58611A mediated  
 inhibition of colonic motility (pA2, 6.8). Several APAT isomers with  
 different configurations at the chiral carbons, when tested on isolated  
 organs, presented stringent stereochem. requirements for  
 .beta.3-selectivity, including high antagonist potency-ratios between  
 active and inactive enantiomers. In vivo, the inhibition of colonic  
 motility and the thermogenic response of brown adipose tissue elicited in  
 rats by the selective .beta.3-adrenoceptor agonists SR  
 58611A and BRL 37344 resp. were substantially diminished by the  
 representative APAT, SR 59230A, at oral doses (.ltoreq.5 mg kg<sup>-1</sup>) well  
 below those half maximally effective (ID50) for preventing  
 .beta.1-(isoprenaline tachycardia .gtoreq.80 mg kg<sup>-1</sup>) or  
 .beta.2-(salbutamol bronchodilatation, 44 mg kg<sup>-1</sup>) mediated responses.  
 Alprenolol, as expected, was a less potent and nonselective antagonist of  
 the putative .beta.3-responses. These findings support APATs as the first  
 potent, orally effective selective antagonists at .beta.3-adrenoceptors,  
 and provide final unambiguous evidence that .beta.3-adrenoceptors underlie  
 inhibition of colonic motility and brown adipose tissue thermogenesis in  
 rats.

L99 ANSWER 19 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1996:76125 HCAPLUS  
 DN 124:220194  
 TI Functional studies of the first selective .beta.3-adrenergic receptor  
 antagonist SR 59230A in rat brown adipocytes  
 AU Nisoli, Enzo; Tonello, Cristina; Landi, Marco; Carruba, Michele O.  
 CS Sch. Med., Milan Univ., Milan, 20129, Italy  
 SO Molecular Pharmacology (1996), 49(1), 7-14  
 CODEN: MOPMA3; ISSN: 0026-895X

PB Williams &amp; Wilkins

DT Journal

LA English

AB The SS-enantiomer 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-ylaminol]-(2S)-2-propanol oxalate (SR 59230A) is proposed to be the first .beta.3-adrenergic receptor antagonist. The present work shows that SR 59230A, unlike its inactive RR-enantiomer (SR 59483), antagonized a typical B3-adrenergic response in vitro, i.e., **SR 58611A**, the ethyl-[(7s)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxethyl]amino]-5,6,7,8-tetrahydronaphth-2-yl]oxyacetate hydrochloride- or (-)-4-(3-t-butylamino-2-hydroxypropoxy)benzimidazol-2-one (CGP 12177)-stimulated synthesis of cAMP in rat brown adipose tissue membranes, with pKB values of 8.87 and 8.20. In addn., SR 59230A had no antagonistic effect on forskolin-induced cAMP accumulation in rat interscapular brown adipose tissue. SR 59230A, in contrast to the selective .beta.1- and .beta.2-adrenoceptor antagonists (.-+.) [2-(3-carbamoyl-4-hydroxyphenoxy)-ethylamino]-3-[4(1-methyl-4-trifluoromethyl-2-imidazolyl)-phenoxy]-2 propanol and erythro-(.-+.)-1-(7-methylindan-4-yloxy)-3-isopropylaminobutan-2-ol-hydrochloride did not counteract the cAMP prodn. induced by (-)-isoprenaline or norepinephrine (NE) in rat brain areas rich in .beta.1- or .beta.2-adrenoceptors, such as frontal cortex and cerebellum. Moreover, in proliferating brown fat cells, in which the .beta.1-adrenoceptor is the only .beta.-adrenergic subtype coupled to cAMP prodn., SR 592301A did not modify the prodn. of cAMP induced by NE, whereas CGP 12177 did. In confluent brown fat cells, in which the .beta.3-adrenoceptor is the functional .beta.-adrenergic subtype coupled to adenylyl cyclase, SR 592301A antagonized the NE-induced cAMP accumulation and glycerol release without affecting their basal values, whereas CGP 12177, which per se stimulated cAMP accumulation and glycerol release, did not change the NE-induced increase of either parameter. Finally, SR 59230A concn.-dependently counteracted the NE-stimulated synthesis of uncoupling protein gene in confluent brown fat cells, which is considered mainly a result of selective stimulation of .beta.3-adrenoceptors. These results provide evidence that the new selective .beta.3-adrenoceptor antagonist can contribute considerably to functional characterization of the .beta.3-adrenoceptors.

L99 ANSWER 20 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1995:905893 HCPLUS

DN 124:45714

TI Prophylactics or therapeutics containing .beta.3-adrenergic agonists for pancreatitis, circulation disorders, or diabetic complications

IN Yoshino, Takako; Yamaguchi, Isamu; Kodama, Hiroshi

PA Fujisawa Pharmaceutical Co, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

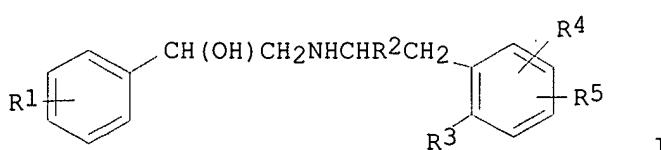
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 07228543	A2	19950829	JP 1994-19431	19940216 <--
OS MARPAT 124:45714				
GI				



AB The prophylactic and/or therapeutic agents for pancreatitis, disorders caused from disturbance of circulation, or diabetic complications contain .beta.3-adrenergic agonists as active ingredients. The .beta.3-adrenergic agonists may be bis(phenethyl)amines I (R1 = halo; R2 = lower alkyl and R3 = H or R2R3 = lower alkylene; R4 = lower alkoxy substituted with carboxy which may be esterified and R5 = H or R4R5 = lower alkylenedioxy substituted with carboxy which may be esterified) or their pharmaceutically acceptable salts. (R\*,R\*)-(.+-.)-[4-[2-[2-(3-chlorophenyl)-2-hydroxyethylamino]propyl]phenoxy]acetic acid Me ester hydrobromide (II) dose-dependently reduced mortality of mice with acute pancreatitis induced by feeding with CDE (choline-deficient ethionine-added) diet at ED50 value 1.0 mg/kg. Capsules contg. II were also formulated.

IT 121524-09-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(prophylactic and therapeutic agents contg. .beta.3-adrenergic agonists for pancreatitis, circulation disorders, and diabetic complications)

L99 ANSWER 21 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1995:821445 HCPLUS

DN 123:247372

TI Differential relevance of .beta.-adrenoceptor subtypes in modulating the rat brown adipocytes function

AU Nisoli, E.; Tonello, C.; Carruba, M. O.

CS School of Medicine, University Milan, Milan, I-20129, Italy

SO Archives Internationales de Pharmacodynamie et de Therapie (1995 ), 329(3), 436-53

CODEN: AIPTAK; ISSN: 0003-9780

PB Heymans Institute of Pharmacology

DT Journal

LA English

AB The potencies and intrinsic activities on cAMP accumulation and lipolysis of various selective .beta.3-adrenoceptor agonists were studied in brown adipocytes and compared to those of the nonselective, (-)-isoprenaline, and conventional .beta.1- (dobutamine) and .beta.2-adrenoceptor (salbutamol) agonists. (-)-Isoprenaline, dobutamine and salbutamol were more potent stimulants of lipolysis than of cAMP accumulation, while the selective .beta.3-adrenoceptor agonists had similar potencies for these two functions. Apparent pA2 values of the selective .beta.1- (CGP 20712A) and .beta.2-adrenoceptor (ICI 118551) antagonists for inhibition of adenylyl cyclase stimulation by (-)-isoprenaline and the .beta.3-adrenoceptor agonists, BRL 37344, SR 58611A, and ICI 215001, indicated that (-)-isoprenaline can stimulate the enzyme through a relevant .beta.1-adrenergic component, while the other drugs activate the enzyme mainly by acting on the .beta.3-adrenoceptors. On the contrary, antagonism of the lipolysis yielded apparent pA2 values for CGP 20712A and ICI 118551, suggesting that (-)-isoprenaline, like all the .beta.3-adrenoceptor agonists, stimulated the brown adipose tissue lipid metab. mainly through an action on .beta.3-adrenoceptors.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(.beta.-adrenoceptor subtypes role in cAMP accumulation and glycerol release by rat brown adipocytes)

L99 ANSWER 22 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1995:817700 HCPLUS

DN 123:275737

TI Rat frontal cortex .beta.1-adrenoceptors are activated by the .beta.3-adrenoceptor agonists SR 58611A and SR 58878A but not by BRL 37344 or ICI 215,001

AU Nisoli, Enzo; Tonello, Cristina; Benarese, Marina; Carruba, Michele O.  
 CS School Medicine, Univ. Milan, Milan, Italy  
 SO Journal of Neurochemistry (1995), 65(4), 1580-7  
 CODEN: JONRA9; ISSN: 0022-3042  
 PB Lippincott-Raven  
 DT Journal  
 LA English  
 AB **SR 58611A**, a selective agonist of gut and brown adipose tissue .beta.3-adrenoceptors (.beta.3ARs), has been reported to have antidepressant-like activity in rodents, indicating brain .beta.3ARs as the sites of this property. **SR 58611A** and its acid metabolite SR 58878A, as opposed to BRL 37344, ICI 215,001, and CGP 12177, increased cAMP levels in rat frontal cortex. ICI 215,001, differently from BRL 37344, at concns. in the millimolar range, partially antagonized norepinephrine- or (-)-isoproterenol-stimulated adenylyl cyclase. The increase of cAMP levels induced by SR 58878A was blocked selectively by the .beta.1AR antagonist CGP 20712A but not by the .beta.2AR antagonist ICI 118,551. In addn., PCR anal. did not reveal .beta.3AR mRNA, and no specific .beta.3AR binding sites were detected by [3H]CGP 12177 in rat frontal cortex. When down-regulation of the .beta.1AR ligand binding and mRNA levels had been induced in the frontal cortex by chronic administration of imipramine, SR 58878A as well as norepinephrine and (-)-isoproterenol increased the cAMP prodn. less markedly. The findings indicate that .beta.3ARs are absent in the adult rat frontal cortex, and that various .beta.3AR agonists differently affect the frontal cortex .beta.1ARs, indicating that **SR 58611A** may exert its putative antidepressant effect by acting on the frontal cortex .beta.1ARs.  
 IT 121524-09-2, **SR 58611A** 160696-89-9,  
 SR 58878A  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (brain frontal cortex .beta.1-adrenergic receptors activated by)

L99 ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1995:794026 HCAPLUS  
 DN 123:246542  
 TI Selective activation of brown adipocyte hormone-sensitive lipase and cAMP production in the mouse by .beta.3-adrenoceptor agonists  
 AU Shih, Mei-Fen; Taberner, Peter V.  
 CS Sch. Med. Sci., Univ. Bristol, Bristol, BS8 1TD, UK  
 SO Biochemical Pharmacology (1995), 50(5), 601-8  
 CODEN: BCPCA6; ISSN: 0006-2952  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Acute injection of either noradrenaline or isoprenaline in mice activated both brown (BAT) and white (WAT) adipose tissue hormone-sensitive lipase activity (HSL). Dose-response studies indicated that isoprenaline (0.05-0.15 mg/kg) produced a dose-dependent activation of HSL in both BAT and WAT, whereas **SR 58611A** produced no change in HSL in WAT over a dose range (105 mg/kg) which, at the same time, dose-dependently increased HSL activity in BAT. The other .beta.3-adrenoceptor agonists, ZD 7114 (10 mg/kg) and BRL 35135 A (5 mg/kg) also selectively increased HSL activity in BAT, these doses having previously been shown to stimulate lipogenesis in vivo. Higher doses of ZD 7114 and BRL 35135 produced no further increase in HSL activity and, in the case of BRL 35135, provoked symptoms of non-selective .beta.-adrenoceptor activation. The increase in HSL activity could be prevented by pretreating the mice with propranolol, 10 mg/kg, i.p., 30 min prior to the agonist. The activation of HSL activity by the .beta.3-adrenoceptor agonists was assocd. with an increase in tissue cAMP prodn. which was also prevented by pretreatment with propranolol. The degree of cAMP accumulation was least with BRL 35135 and greatest with ZD

7114. The authors conclude that, in the mouse adipocyte, the atypical  $\beta$ -adrenoceptor ( $\beta_3$ ) is present in BAT, but is not present or functional in WAT.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(selective activation of brown adipocyte hormone-sensitive lipase and cAMP prodn. in the mouse by  $\beta_3$ -adrenoceptor agonists)

L99 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:614635 HCAPLUS

DN 123:74228

TI Predictive quantitative structure-activity relationships (QSAR) analysis of  $\beta_3$ -adrenergic ligands

AU Blin, Nathalie; Federici, Christian; Koschielniak, Thiery; Strosberg, Donny

CS Institut Cochin Genetique Moleculaire, Universite Paris VII, Paris, 75014, Fr.

SO Drug Design and Discovery (1995), 12(4), 297-311

CODEN: DDDIEV; ISSN: 1055-9612

PB Harwood

DT Journal

LA English

AB A novel quant. structure-activity relationships strategy was used to analyzed seventeen  $\beta$ -adrenergic ligands for which we had previously evaluated pharmacol. properties in Chinese hamster ovary cells transfected with the human  $\beta_1$ -,  $\beta_2$ - or  $\beta_3$ -adrenergic gene (Blin et al., 1993, Mol. Pharmacol., 44: 1094-1104). These ligands were classified into pharmacol. activity categories in order to det. the extent to which mol. structural features may be involved in the selectivity of the interaction with the  $\beta_3$ -AR, or to define mol. features and properties characteristic of a  $\beta_3$ -AR high affinity ligand or of a potent  $\beta_3$ -adrenergic agonist. Topol. and physico-chem. mol. descriptors were obtained using a novel software combining calcns. with multivariate statistical methods, such as principal component anal. and discriminant anal. This study showed that  $\beta_1$ / $\beta_2$ -antagonists  $\beta_3$ -agonists could be differentiate from  $\beta_1$ / $\beta_2$ / $\beta_3$ -agonists on the basis of their topol. mol. descriptors weighted by partial at. charge and lipophilicity logP values. Bulky lipophilic groups at the end of the alkylamine chain and an ethoxy function, extending the flexible portion of the mol. and modifying the electron d. distribution, were requirements for selective agonism at the  $\beta_3$ -site. Charge and logP weighted 2D-autocorrelation vectors were properties able to discriminate between classes of agonists to terms of their affinity, potency or intrinsic activity, thus emphasizing the part these mol. descriptors play in detg.  $\beta_3$ -adrenergic ligands. These results, in assocn. with the powerful activity-prediction model evaluated in the test, provide a framework to rationalize the synthesis of new  $\beta_3$ -AR specific compds.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(QSAR anal. of  $\beta_3$ -adrenergic ligands)

L99 ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:494286 HCAPLUS

DN 122:256840

TI Inhibitory effects of SR 58611A on canine colonic motility: evidence for a role of  $\beta_3$ -adrenoceptors

AU de Ponti, Fabrizio; Cosentino, Marco; Costa, Angela; Girani, Marco;

Gibelli, Graziano; d'Angelo, Luigi; Frigo, Gianmario; Crema, Antonio

CS Dep. Internal Med. and Therapeutics, Univ. Pavia, Pavia, I-27100, Italy

SO British Journal of Pharmacology (1995), 114(7), 1447-53

CODEN: BJPCBM; ISSN: 0007-1188  
 PB Stockton  
 DT Journal  
 LA English  
 AB To clarify whether atypical of .beta.3-adrenoceptors can modulate canine colonic motility in vivo, we studied the effects of **SR 58611A** (a selective agonist for atypical .beta.-adrenoceptors) alone and after pretreatment with .beta.-adrenoceptor antagonists on colonic motility in the conscious dog. The gastrocolonic response (postprandial increase in motility) was monitored by electrodes and strain-gauge force transducers chronically implanted along the distal colon. In some expts., heart rate was also measured. The possible role of .beta.3-adrenoceptors in mediating the effects of **SR 58611A** was also tested in vitro in circular muscle strips taken from the canine distal colon. I.v. infusion of **SR 58611A**, ritodrine or isoprenaline at doses inducing the same degree of tachycardia inhibited the gastrocolonic response to a different extent, with **SR 58611A** and ritodrine being more effective than isoprenaline. In a dose-response study, **SR 58611A** was more potent in inhibiting colonic motility than in inducing tachycardia: the ED35 values for inhibition of colonic motility and induction of tachycardia were 23 and 156 .mu.g kg-1, i.v., resp. The inhibitory effect of **SR 58611A** 100 .mu.g kg-1, i.v., on the gastrocolonic response was reversed by alprenolol (non-selective .beta.-adrenoceptor antagonist), but resistant to CGP 20712A (.beta.1-adrenoceptor antagonist) or ICI 118551 (.beta.2-adrenoceptor antagonist). In vitro, **SR 58611A** concn.-dependently relaxed circular muscle strips, an effect that was competitively antagonized by alprenolol with a pA2 values of 7.1, but resistant to CGP 20712A (100 nM), ICI 118551 (100 nM) or tetrodotoxin (1 .mu.m). The present study provides strong functional evidence for a role of atypical or .beta.3-adrenoceptors in the modulation of canine colonic motility both in vivo and in vitro by an inhibitory effect most likely at the smooth muscle level.

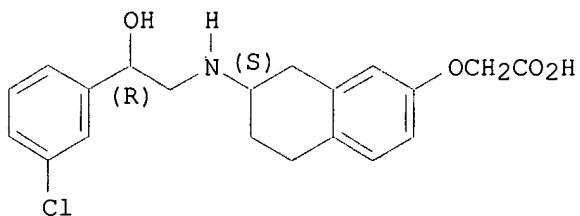
IT 121524-09-2, **SR 58611A**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitory effects of **SR 58611A** on canine colonic motility and evidence for a role of .beta.3-adrenoceptors)

L99 ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1995:347146 HCAPLUS  
 DN 122:132788  
 TI Preparation of (7S)-7-(1R)-2-(3-chlorophenyl)-2-hydroethylamino-5,6,7,8-tetrahydronaphthalen-2-yloxyacetic acid .beta.3-adrenergic agonist and pharmaceutical compositions containing it  
 IN Baroni, Marco; Cecchi, Roberto; Croci, Tiziano  
 PA Sanofi, Fr.; Midy S.P.A.  
 SO Eur. Pat. Appl., 6 pp.  
 CODEN: EPXXDW

DT Patent  
 LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 626367	A1	19941130	EP 1994-401163	19940526 <--
	EP 626367	B1	19970409		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	EP 627407	A1	19941207	EP 1993-401375	19930528 <--
	R: IT				
PRAI	EP 1993-401375		19930528 <--		
GI					



AB The title compd., I [m.p. 215.degree., decompn.;  $[\alpha]_D^{20} = -98.4$ .degree. (0.5% MeOH/HCl 1N)], and its pharmaceutically acceptable salts (e.g., the Na salt) is prep'd. by the sapon. of the corresponding Et ester and is useful as a  $\beta$ .3-adrenergic receptor agonist for the treatment of diseases amenable to application of a  $\beta$ .3-adrenergic agonist [e.g., irritable colon (no data), obesity (no data), anxiety (no data), etc. (no data)].

IT 160696-89-9DP, salts 160853-47-4P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (claimed; prepn. as  $\beta$ .3-adrenergic receptor agonist)

IT 160696-89-9P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. as  $\beta$ .3-adrenergic receptor agonist)

IT 121524-08-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of (7S)-7-(1R)-2-(3-chlorophenyl)-2-hydroethylamino-5,6,7,8-tetrahydronaphthalen-2-yloxyacetic acid  $\beta$ .3-adrenergic agonist and pharmaceutical compns. contg. it)

L99 ANSWER 27 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1995:331108 HCPLUS

DN 122:105454

TI Preparation of (7S)-7-[(2-(3-chlorophenyl)-2-hydroxyethylamino)-5,6,7,8-tetrahydronaphthalen-2-yloxy]acetic acid  $\beta$ .3-adrenergic receptor agonist

IN Baroni, Marco; Croci, Tiziano; Cecchi, Roberto

PA Miday s.p.a., Italy

SO Eur. Pat. Appl., 5 pp.

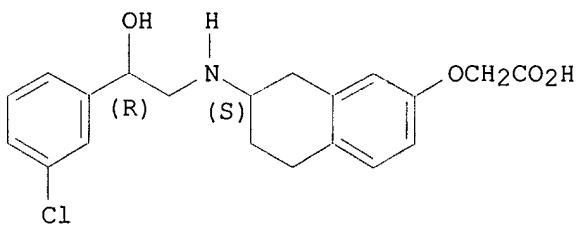
CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 627407	A1	19941207	EP 1993-401375	19930528 <--
	R: IT				
	EP 626367	A1	19941130	EP 1994-401163	19940526 <--
	EP 626367	B1	19970409		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	AT 151405	E	19970415	AT 1994-401163	19940526 <--
	ES 2103113	T3	19970816	ES 1994-401163	19940526 <--
	JP 07070013	A2	19950314	JP 1994-117182	19940530 <--
	US 5488151	A	19960130	US 1994-250830	19940531 <--
PRAI	EP 1993-401375		19930528 <--		
GI					



AB The title compd., I, prep'd. by the basic hydrolysis of the corresponding I Et ester, is prep'd. and useful as a .beta.3-adrenergic receptor agonist (no data) for use as an antiobesity agent (no data), for the treatment of gastrointestinal problems due to the G.I. contraction of smooth muscle (no data), for the treatment of irritable colon (no data), etc. (no data).

IT 160696-89-9DP, salts 160696-89-9P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. as .beta.3-adrenergic receptor agonist)

IT 121524-08-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of .beta.3-adrenergic receptor agonist by hydrolysis of)

L99 ANSWER 28 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:215093 HCAPLUS

DN 122:741

TI .beta.3-Adrenoceptor agonists, BRL 37344 and **SR 58611A**, do not induce relaxation of human, sheep and guinea pig airway smooth muscle in vitro

AU Martin, C.A.E.; Naline, E.; Bakdach, H.; Advenier, C.

CS Laboratoire de Pharmacologie, Faculte de Medecine Paris-Ouest, Paris, F-75270, Fr.

SO European Respiratory Journal (1994), 7(9), 1610-15  
 CODEN: ERJOEI; ISSN: 0903-1936

DT Journal

LA English

AB The existence of atypical- or .beta.3-adrenoceptors has now been generally accepted. These receptors have been shown to be abundant in adipose tissue and in a no. of gastrointestinal smooth muscle prepns. A recent study reported that .beta.3-adrenoceptor stimulation mediated relaxation of isolated canine bronchial smooth muscle. The aim of the present study was to extend this observation to other species. The authors investigated the in vitro responses of guinea-pig, human and sheep bronchial smooth muscle to isoprenaline, salbutamol (a selective .beta.2-adrenoceptor agonist), and BRL 37344 and **SR 58611A** (two presumably selective .beta.3-adrenoceptor agonists). The prepns. were precontracted to 60-70% of maximal tension with histamine 10-6 M for guinea-pig and human bronchi, or acetylcholine 10-6 M for sheep bronchi. In each species, **SR 58611A** produced a slight fall in tension of about 10% of the effects of theophylline (3 mM), but this decrease in tension was not significantly different from the spontaneous and weak relaxation obsd. with saline addn. during the same duration of the expt. These relaxations were not modified by either the nonselective .beta.-adrenoceptor antagonist propranolol or the selective .beta.2-adrenoceptor antagonist ICI 118,551. In contrast, BRL 37344 induced a significant concn.-dependent fall in tension induced by both spasmogens. Its relaxant effects were inhibited both by propranolol and ICI 118,551 in human and guinea-pig airways, whereas on the isolated sheep bronchus BRL 37344-induced relaxations were only slightly, albeit significantly, reduced with either of the .beta.-adrenoceptor antagonists

tested. Salbutamol and isoprenaline induced potent relaxations of guinea-pig, human and sheep airway smooth muscle in vitro, which were antagonized both by propranolol and ICI 118,551. The authors findings show that  $\beta$ .3-adrenoceptor stimulation does not induce relaxation in guinea-pig, human and sheep bronchial smooth muscle, and that a  $\beta$ .2-adrenoceptor agonistic component might be implicated in the relaxant effects of BRL 37344.

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (. $\beta$ .3-adrenoceptor agonists BRL 37344 and SR 58611A do not induce relaxation of human, sheep, and guinea pig airway smooth muscle in vitro)

L99 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:63848 HCAPLUS

DN 122:80821

TI Synthesis of the potent and selective atypical  $\beta$ -adrenergic agonist SR 59062 A

AU Badone, Domenico; Guzzi, Umberto

CS Res. Cent., Sanofi-Midy SpA, Milan, Italy

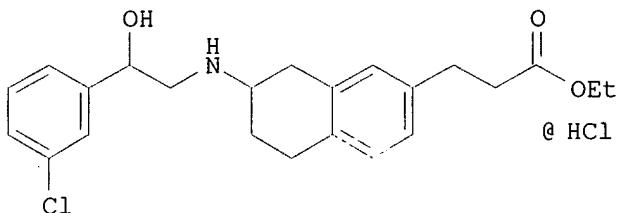
SO Bioorganic & Medicinal Chemistry Letters (1994), 16(4), 1921-4

CODEN: BMCLE8; ISSN: 0960-894X

DT Journal

LA English

GI



AB The search for synthesis and evaluation of a novel highly potent atypical  $\beta$ -adrenergic agonist ( $\beta$ .3-agonist) are described. An example compd. is the SR 68611A analog 7-[2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydro-2-naphthalene propanoate hydrochloride (I) (diastereomers).

IT 121524-09-2, SR 58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MSC (Miscellaneous); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (prepn. of SR 59062A (SR 58611A bioisostere))

L99 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:645501 HCAPLUS

DN 121:245501

TI Enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in the rat

AU Kuratani, Kazuyoshi; Kodama, Hiroshi; Yamaguchi, Isamu

CS Tsukuba Res. Labs., Fujisawa Pharm. Co. Ltd., Tsukuba, 300-26, Japan

SO Journal of Pharmacology and Experimental Therapeutics (1994), 270(2), 559-65

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

AB Indomethacin (32 mg/kg s.c.) produced mainly antral ulcers in refed rats

but almost exclusively corpus erosions in fasted rats. S.c. doses of a nonselective beta (isoproterenol), a selective .beta.-2 (salbutamol) and selective .beta.-3 adrenergic agonists BRL 35135, CL 316243, SR 58611A, dose-dependently attenuated the antral ulcers, and their activities were in the order of BRL 35135 (ED50 = 0.03 mg/kg) > CL 316243 (ED50 = 0.04 mg/kg) > SR 68511A (ED50 = 0.2 mg/kg) > isoproterenol (ED50 = 0.4 mg/kg) > salbutamol (ED50 = 6 mg/kg). Whereas only isoproterenol, salbutamol and BRL35135 significantly attenuated the corpus erosions and reduced gastric acid secretion in pylorus-ligated rats. In *in vitro*, all the beta agonists enhanced the beating rate of guinea pig atria (.beta.-1 action) and inhibited spontaneous contractions of rat uterus (.beta.-2 action) and colon (.beta.-3 action). There was found a statistically significant correlation between the IC50 values of the drugs on the colon and ED50 values on the indomethacin-induced antral ulcers ( $r = 0.97$ ). In addn., the beta agonists excepting salbutamol increased antral gastric mucosal blood flow in rats anesthetized with halothane, and the activities were arranged in the potency order of inhibiting colon motility. It is concluded that activation of .beta.-3 adrenoceptor attenuates the indomethacin-induced antral ulcers through an enhancement of antral gastric mucosal blood flow, whereas activation of beta-1 and/or .beta.-2 adrenoceptors attenuates indomethacin-induced corpus erosions through an inhibition of gastric secretion.

IT 121524-09-2, SR58611A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer ~~in rat~~)

L99 ANSWER 31 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1994:630444 HCPLUS

DN 121:230444

TI Synthesis and .beta.-adrenergic activity of atypical .beta.-adrenergic phenylethanaminotetralin stereoisomers

AU Cecchi, R.; Croci, T.; Boigegrain, R.; Boveri, S.; Baroni, M.; Boccardi, G.; Guimbard, J. P.; Guzzi, U.

CS Res. Cent., Sanofi Midy SpA, Milan, 20137, Italy

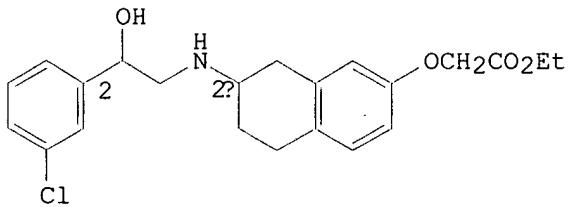
SO European Journal of Medicinal Chemistry (1994), 29(4), 259-67  
CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA English

OS CASREACT 121:230444

GI



AB A series of substituted phenylethanaminotetralins were synthesized as pure stereoisomers and their ability to stimulate atypical .beta.-adrenoceptors selectively was evaluated. The compds. *in vitro* relative potencies were assessed using the atypical .beta. response of inhibition of rat proximal colon motility and the typical .beta.1 (increase in guinea-pig right atrial frequency) and .beta.2 (guinea-pig tracheal relaxation and rat uterus motility inhibition) responses. (2R,2'S)-I (SR 58611A) was found to be the most potent and selective.

IT 121216-31-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and conversion of, to adrenergic phenylethanolaminotetralin  
 stereoisomer)

IT 107758-36-1P 107758-37-2P 107758-38-3P  
 107758-39-4P 120839-53-4P 121216-32-8P  
 158223-17-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and .beta.-adrenergic activity of)

L99 ANSWER 32 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1994:549595 HCAPLUS  
 DN 121:149595  
 TI .beta.-Adrenergic control of lipolysis in primate white fat cells: a  
 comparative study with nonprimate mammals  
 AU Bousquet-Melou, Alain; Galitzky, Jean; Carpene, Christian; Lafontan, Max;  
 Berlan, Michel  
 CS Faculte de Medecine, Universite Paul Sabatier, Toulouse, 31073, Fr.  
 SO American Journal of Physiology (1994), 267(1, Pt. 2), R115-R123  
 CODEN: AJPHAP; ISSN: 0002-9513  
 DT Journal  
 LA English  
 AB The .beta.-adrenoceptor subtypes involved in the control of lipolysis in  
 white fat cells of rat, dog, marmoset (*Callithrix jacchus*), baboon (*Papio  
 papio*), macaque (*Macaca fascicularis*), and human were compared. In all  
 species, [<sup>3</sup>H]CGP-12177 binding (up to 3 nM) indicated the existence of a  
 homogeneous population of binding sites in fat cell membranes, and  
 competition studies showed that .beta.1- and .beta.2-adrenoceptors were  
 present. Selective .beta.1- or .beta.2-adrenoceptor agonists induced  
 lipolysis. The efficiencies of isoproterenol and norepinephrine were  
 similar. The use of selective .beta.3-adrenoceptor agonists revealed that  
 BRL-37344 and CL-316243 were full agonists, whereas CGP-12177 and  
 SR-58611A were partial agonists in rat and dog white fat  
 cells. .beta.3-Agonists partially stimulated lipolysis in the marmoset,  
 while CGP-12177 was weakly active in the baboon. In macaque and human fat  
 cells, B3-agonists were ineffective. The lipolytic effect of  
 norepinephrine involves .beta.1-and/or .beta.2-adrenoceptors in baboon,  
 macaque, and human. The baboon and macaque constitute valuable models for  
 studying the .beta.-adrenergic control of lipolysis.

IT 121524-09-2, SR-58611A  
 RL: BIOL (Biological study)  
 (lipolysis stimulation by, in adipose tissue of human and mammals)

L99 ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1994:473752 HCAPLUS  
 DN 121:73752  
 TI SR 58611A: a novel thermogenic .beta.-adrenoceptor  
 agonist  
 AU Nisoli, Enzo; Tonello, Cristina; Carruba, Michele O.  
 CS Section of Pharmacology, Toxicology and Experimental Therapeutics,  
 Department of Biomedical Sciences and Biotechnologies, School of Medicine,  
 University of Brescia, Via Valsabbina 19, Brescia, 25123, Italy  
 SO European Journal of Pharmacology (1994), 259(2), 181-6  
 CODEN: EJPHAZ; ISSN: 0014-2999  
 DT Journal  
 LA English  
 AB N(2S)-7-[carbethoxymethoxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-hydroxy-2-  
 (3-chlorophenyl)ethanamine hydrochloride (SR 58611A)  
 increased cAMP levels in membrane homogenates from rat interscapular brown  
 adipose tissue with an EC<sub>50</sub> of 20 nM. Substitution of GTP with the GDP  
 analog, guanosine-5'-O-[thiodiphosphate], in the incubation medium  
 suppressed the stimulation of adenylyl cyclase activity by SR  
 58611A. This compd. also stimulated glycerol release from the

brown fat cells, with an EC50 of 11 nM. Only at doses higher than 10  $\mu$ M did the non-selective  $\beta$ -adrenoceptor antagonists, propranolol and alprenolol, as well as the selective  $\beta$ .1- and  $\beta$ .2-adrenoceptor antagonists,  $(.+-.)$ -[2-(3-carbamoyl-4-hydroxyphenoxy)-ethylamino]-3-[4(1-methyl-4-trifluoromethyl-2-imidazolyl)-phenoxy]-2 propanol (CGP 20712A) and erythro-(.+-.)-1-(7-methylindan-4-yloxy)-3-iso-propylaminobutan-2-ol-hydrochloride (ICI 118,551), antagonize the **SR 58611A** -induced stimulation of both adenylyl cyclase activity and lipid metab. Since, at high doses, all these  $\beta$ -adrenoceptor antagonists lack selectivity for  $\beta$ .1- or  $\beta$ .2- adrenoceptors, these results suggest that the  $\beta$ -adrenoceptor agonist, **SR 58611A**, activates thermogenesis by acting on brown fat cell  $\beta$ .3-adrenoceptors. This implies that this compd. might be useful for treatment of obesity.

IT 121524-09-2, **SR 58611A**

RL: BIOL (Biological study)

(thermogenesis from, adipose tissue metab. in, antiobesity activity in relation to)

L99 ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:153732 HCAPLUS

DN 120:153732

TI Atypical  $\beta$ -adrenoceptor agonists for treatment of gastrointestinal disorders

IN Bahl, Ashwani K.

PA Glaxo Group Ltd., UK

SO Can. Pat. Appl., 29 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2087823	AA	19930723	CA 1993-2087823	19930121 <--
	EP 556880	A2	19930825	EP 1993-200096	19930115 <--
	EP 556880	A3	19931027		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	EP 713698	A2	19960529	EP 1995-202209	19930115 <--
	EP 713698	A3	19960612		
	EP 713698	B1	20020403		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 215365	E	20020415	AT 1995-202209	19930115 <--
	AU 9331981	A1	19930729	AU 1993-31981	19930121 <--
	AU 666904	B2	19960229		
	JP 05255114	A2	19931005	JP 1993-8603	19930121 <--
	ZA 9300424	A	19931011	ZA 1993-7424	19930121 <--
	IL 104464	A1	19970930	IL 1993-104464	19930121 <--
PRAI	GB 1992-1359	A	19920122	<--	
	GB 1992-25684	A	19921209	<--	
	EP 1993-200096	A3	19930115	<--	

OS MARPAT 120:153732

AB Agonists (Markush included) of atypical  $\beta$ -adrenoceptors are used for treating gastrointestinal disorders, esp. peptic ulceration, esophagitis, gastritis and duodenitis, intestinal ulcerations, including inflammatory bowel disease, and gastrointestinal ulcerations, esp. when induced by nonsteroidal antiinflammatory drugs or corticosteroids. Fifteen specific agonists are claimed. Thus, in animal studies, CL316243 [(R,R)-5-(2-((2-(3-chlorophenyl)-2-hydroxyethyl)amino)propyl)-1,3-benzodioxole-2,2-dicarboxylic acid] showed 83 and 96% inhibition of indomethacin-induced and piroxicam-induced gastrointestinal damage, resp. Tablet, syrup, i.v. injection, and suppository formulations are included.

IT 107758-23-6, **SR 58572** 107758-27-0, **SR 58380**

107758-43-0, **SR 58306** 121524-08-1, **SR**

58611

RL: BIOL (Biological study)  
 (as agonist of atypical .beta.-adrenoceptor, for gastrointestinal disorder treatment)

L99 ANSWER 35 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1994:95485 HCAPLUS  
 DN 120:95485  
 TI Effects of two .beta.3-adrenoceptor agonists, **SR 58611A** and BRL 37344, and of salbutamol on cholinergic and NANC neural contraction in guinea pig main bronchi in vitro  
 AU Martin, Corinne A. E.; Naline, Emmanuel; Manara, Luciano; Advenier, Charles  
 CS Dep. Pharmacol., Fac. Med. Paris-Ouest, Paris, F-75270, Fr.  
 SO British Journal of Pharmacology (1993), 110(4), 1311-16  
 CODEN: BJPCBM; ISSN: 0007-1188  
 DT Journal  
 LA English  
 AB The aim of the present study was to investigate the type of adrenoceptor which modulates constriction of the guinea-pig isolated main bronchus in response to elec. field stimulation (EFS). Drugs used were salbutamol and two agonists reportedly selective for the putative .beta.3-adrenoceptor: BRL 37344 and **SR 58611A**. At basal tone, all three drugs induced relaxation, however, **SR 58611A** and BRL 37344 (10-9 to 10-6 M) relaxed guinea-pig isolated main bronchus more weakly than salbutamol (10-9 to 10-6 M). The effects obsd. at 10-6 M were 43% .+- 9%, 63% .+- 4% and 98% .+- 1% of the maximal effect induced by theophylline (3 .times. 10-3 M) for **SR 58611A**, BRL 37344 and salbutamol, resp. **SR 58611A** and BRL 37344 (10-8 to 10-6 M) did not significantly modify the cholinergic component of the response to EFS, but caused a concn.-dependent redn. of the nonadrenergic noncholinergic (NANC) excitatory component (41.8% .+- 10.1% and 56.8% .+- 7.4% resp. at 10-6 M, n = 6-7). Salbutamol (10-9 to 10-7 M) strongly inhibited both components, with 91.1% .+- 4.2% of inhibition for the NANC contraction and 62.0% .+- 5.2% of inhibition for the cholinergic contraction (10-7 M, n = 7). Whereas the inhibitory effects of salbutamol were strongly inhibited by both propranolol (10-6 M) and ICI 118,551 (10-6 M), those of BRL 37344 were only slightly, albeit significantly reduced by both propranolol and ICI 118,551, and those of **SR 58611A** were unaffected by treatment with either .beta.-adrenoceptor antagonist. An .alpha.2-adrenoceptor antagonist, yohimbine, did not influence the inhibitory effects of any of the .beta.-adrenoceptor agonists tested. Concn.-response curves to acetylcholine (10-8 to 10-3 M), [Nle10]NKA(4-10) (10-10 to 10-6 M) and substance P (10-10 to 3 .times. 10-6 M) were also significantly shifted to the right by salbutamol (10-6 M), whereas **SR 58611A** and BRL 37344 (10-6 M) had no effect. These results suggest that the stimulation of putative .beta.3-adrenoceptors exerts a specific prejunctional inhibitory action on NANC excitatory response induced by EFS of the isolated main bronchus of the guinea-pig. They also suggest that a .beta.2-adrenoceptor agonistic component may be involved in the effects of BRL 37344.  
 IT 121524-09-2, **SR 58611A**  
 RL: BIOL (Biological study)  
 (cholinergic and NANC neural contraction in main bronchi response to, as .beta.3-adrenoceptor agonist)

L99 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1993:663143 HCAPLUS  
 DN 119:263143  
 TI Similar atypical .beta.-adrenergic receptors mediate in vitro rat adipocyte lipolysis and colonic motility inhibition  
 AU Landi, Marco; Croci, Tiziano; Manara, Luciano  
 CS Res. Cent., SANOFI-MIDY S.p.A., Milan, 20137, Italy

SO Life Sciences (1993), 53(18), PL297-PL302  
 CODEN: LIFSAK; ISSN: 0024-3205  
 DT Journal  
 LA English  
 AB The authors studied the putative common nature of the rat atypical .beta.-adrenoceptors mediating white adipocyte lipolysis and proximal colon motility inhibition, using the nonselective antagonist alprenolol and agonist isoprenaline and the selective agonists **SR 58611A** and BRL 37344. Results in either isolated intestinal and fat tissues were consistent with: isoprenaline acting through both typical (.beta.1, .beta.2) and atypical .beta.-adrenoceptors; **SR 58611A** and BRL 37344 acting solely through the latter. The identical pA<sub>2</sub> values obtained with alprenolol, irresp. of the tissue and the selective agonist (**SR 58611A** or BRL 37344) used, support the high functional homol. of the atypical .beta.-adrenoceptors in rat colon and adipocytes.  
 IT 121524-09-2, **SR 58611A**  
 RL: BIOL (Biological study)  
 (adipocyte lipolysis and colonic motility response to, .beta.-adrenergic receptors mediation of)

L99 ANSWER 37 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1992:585365 HCPLUS  
 DN 117:185365  
 TI Phenylethanaminotetralines compete with [<sup>3</sup>H]dihydroalprenolol binding to rat colon membranes without evidencing atypical .beta.-adrenergic sites  
 AU Landi, Marco; Bianchetti, Alberto; Croci, Tiziano; Manara, Luciano  
 CS Res. Cent., Sanofi-Midy S.p.A., Milan, 20137, Italy  
 SO Biochemical Pharmacology (1992), 44(4), 665-72  
 CODEN: BCPCA6; ISSN: 0006-2952  
 DT Journal  
 LA English  
 AB [<sup>3</sup>H]Dihydroalprenolol ([<sup>3</sup>H]DHA)-specific binding (detd. by the difference in the presence and absence of 20 .mu.M (-)isoprenaline) to rat colon membranes was saturable ( $B_{max} = 39.6$  fmol/mg protein), of high affinity ( $K_d = 0.87$  nM), and stereospecific ( $IC_{50}$  330 and 3510 nM for (-)- and (+)isoprenaline, resp.); the Hill coeff. was close to one, indicating binding homogeneity. [<sup>3</sup>H]DHA (0.6 nM) specific binding was potently inhibited ( $K_i$  range 1.9-3.3 nM) by the non-selective .beta.-adrenoceptor antagonists pindolol, alprenolol, and propranolol, but not by the nonadrenergic compds. 5-hydroxytryptamine, 8-hydroxydipropylaminotetraline, methylsergide, dopamine, and verapamil ( $K_i > 10,000$  nM). The selective .beta.1- and .beta.2-adrenoceptor antagonists CGP 20,712A and ICI 118,551 resulted in biphasic competition binding curves, whose low and high affinity components were compatible with two populations of binding sites accounting for about 75 (.beta.2) and 25% (.beta.1) of total sites. The relative competing potencies of ref. adrenergic agonists also suggested a prevalence of .beta.2-adrenergic sites. The new agonists phenylethanaminotetralines (PEATs), highly selective for the atypical .beta.-adrenoceptors whose abundance in rat colon has been confirmed by comprehensive functional studies, had variable affinity for the [<sup>3</sup>H]DHA-labeled sites depending on chirality, but with no substantial correlation with their pharmacol. potency. Only 40% of [<sup>3</sup>H]DHA binding, at a concn. about 10 times its  $K_d$  for high affinity sites (.beta.1 and .beta.2), was prevented by satg. concns. of isoprenaline. Under this condition, the representative PEAT, SR 58611A, highly potent and selective for atypical .beta.-adrenoceptors in functional tests, and its pharmacol. inactive enantiomer, both inhibited the residual binding equipotently. In conclusion, [<sup>3</sup>H]DHA binding did not detect atypical .beta.-adrenoceptor sites in rat colon membranes, most probably because of its weaker affinity for them than for the coexisting .beta.1 and .beta.2 sites. PEAT stereoisomers proved essential for assessing both the stereospecificity and the functional significance of this atypical binding and to compare

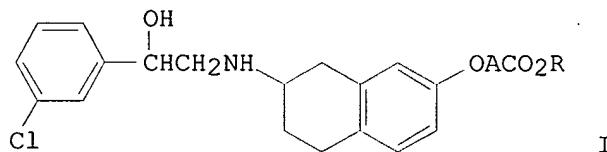
IT their affinity for [3H]DHA-labeled sites and pharmacol. potency.  
 107758-36-1, SR 58375A 107758-37-2, SR 58374A  
 107758-39-4, SR 58373A 107758-41-8, SR 58372  
 120839-53-4, SR 58572A 121216-30-6, SR 58590  
 121216-31-7, SR 58589 121216-32-8, SR 58575A  
 RL: BIOL (Biological study)  
 (dihydroalprenolol binding by colon membranes displacement by)

L99 ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1992:584788 HCAPLUS  
 DN 117:184788  
 TI Antidepressant profile in rodents of **SR 58611A**, a new selective agonist for atypical .beta.-adrenoceptors  
 AU Simiand, Jacques; Keane, Peter E.; Guitard, Josette; Langlois, Xavier; Gonalons, Nadine; Martin, Patrick; Bianchetti, Alberto; Le Fur, Gerard; Soubrie, Philippe  
 CS Sanofi Rech., Toulouse, 31036, Fr.  
 SO European Journal of Pharmacology (1992), 219(2), 193-201  
 CODEN: EJPHAZ; ISSN: 0014-2999  
 DT Journal  
 LA English  
 AB .beta.2-Adrenoceptor agonists possess antidepressant-like activity in animals and man, but their peripheral side-effects prevent their therapeutic use. Atypical .beta.-adrenoceptors have not been found in the central nervous system, but exist in peripheral tissues such as the rat colon. The antidepressant-like effects of **SR 58611A** were studied in mice and rats. **SR 58611A** was active with minimal EDs of 0.1-0.3 mg/kg i.p. in several models (antagonism of hypothermia induced by apomorphine and reserpine, potentiation of yohimbine toxicity, reversal of learned helplessness), but was inactive in the tests of reserpine-induced ptosis and behavioral despair. The antidepressant-like effect of **SR 58611A** was not antagonized by selective .beta.1- or .beta.2-adrenergic receptor antagonists, but was blocked by high doses of the non-selective .beta.-adrenoceptor antagonists propranolol and alprenolol. Unlike .beta.2-adrenoceptor agonists, **SR 58611A** did not reduce the locomotor activity or increase the water intake at doses up to 10 mg/kg. **SR 58611A** is a prototype of a new class of antidepressant compds.  
 IT 121524-09-2  
 RL: BIOL (Biological study)  
 (antidepressant pharmacol. of, atypical .beta.-adrenergic receptors role in)

L99 ANSWER 39 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1992:563882 HCAPLUS  
 DN 117:163882  
 TI Phenylethanolaminotetralins as antidepressant and antistress agents  
 IN Keane, Peter Eugene; Bianchetti, Alberto; Simiand, Jacques; Croci, Tiziano  
 PA Elf Sanofi, Fr.  
 SO Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA French  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 489640	A1	19920610	EP 1991-403263	19911203 <--
EP 489640	B1	19961002		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
FR 2669821	A1	19920605	FR 1990-15171	19901204 <--
FR 2669821	B1	19941209		
AT 143592	E	19961015	AT 1991-403263	19911203 <--

CA 2056906	AA	19920605	CA 1991-2056906	19911204 <--
CA 2056906	C	19980428	AU 1991-88395	19911204 <--
AU 9188395	A1	19920611	HU 1991-3800	19911204 <--
AU 653968	B2	19941020	JP 1991-320532	19911204 <--
HU 59595	A2	19920629	US 1991-804580	19911204 <--
HU 207793	B	19930628		
JP 05025040	A2	19930202		
US 5270341	A	19931214		
PRAI FR 1990-15171		19901204 <--		
OS MARPAT 117:163882				
GI				



AB The title compds. I (A = C1-4 alkylene; R = H, C1-4 alkyl) are drugs for the prevention and treatment of depression and stress. Oral administration of N-[2S]-7-ethoxycarbonylmethoxy-1,2,3,4-tetrahydronaphth-2-yl]-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl (2 mg/kg) lowered the myoelec. activity of the proximal colon in rats under immobilization stress.

IT 121524-10-5 121524-11-6 129831-97-6

135025-87-5 143554-26-1 143554-27-2

RL: BIOL (Biological study)  
(antidepressant and antistress agent)

L99 ANSWER 40 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1992:483203 HCPLUS

DN 117:83203

TI Stimulation of bicarbonate secretion by atypical .beta.-receptor agonists in rat cecum in vitro

AU Canfield, Paul; Abdul-Ghaffar, Tarik

CS Med. Sch., St. Mary's Hosp., London, W2 1PG, UK

SO European Journal of Pharmacology (1992), 216(2), 293-7

CODEN: EJPHAZ; ISSN: 0014-2999

DT Journal

LA English

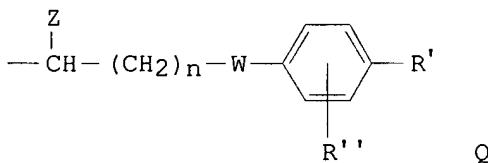
AB This study examd. the effects of .beta.-adrenoceptor agonists on bicarbonate secretion by the rat cecum in vitro. Isoprenaline, the .beta.-2-selective agonist salbutamol and the 'atypical' .beta.-agonist **SR58611A** stimulated bicarbonate secretion in a concn. related manner. Another atypical agonist, BRL 37344, also stimulated. Responses to isoprenaline were antagonized by alprenolol and propranolol (both 20 .mu.M) but not the selective antagonists practolol (10 .mu.M) or ICI 1185511 (1 .mu.M). Responses to **Sr 58611A** were only antagonized by alprenolol. Replacement of Cl- by NO3- on the mucosal surface reduced basal secretion and abolished the response to isoprenaline. Exposure to a single concn. of atypical agonist resulted in desensitization to a second application and to isoprenaline. There was no evidence of desensitization with isoprenaline or salbutamol. The results show that .beta.-adrenoceptor agonists stimulated bicarbonate secretion in contrast to the previously described inhibitory effect of cholinergic drugs in this tissue. Stimulation was mediated by .beta.-adrenoreceptors, which had properties consistent with the atypical receptors described in gut smooth muscle and in adipose tissue. Both adrenergic and cholinergic drugs may act on the same mechanism of secretion which may involve an

IT exchange of  $\text{HCO}_3^-$  for mucosal  $\text{Cl}^-$ .  
 IT 121524-09-2, SR 58611A  
 RL: BIOL (Biological study)  
 (cecum bicarbonate secretion response to)

L99 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1991:457179 HCAPLUS  
 DN 115:57179  
 TI Use of phenylethanolamines for the preparation of a medicament for  
 treating ophthalmologic disorders, especially glaucoma  
 IN Manara, Luciano  
 PA SANOFI, Fr.; Midy S.p.A.  
 SO Eur. Pat. Appl., 13 pp.  
 CODEN: EPXXDW

DT Patent  
 LA French  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 403360	A2	19901219	EP 1990-401606	19900612 <--
	EP 403360	A3	19920226		
	EP 403360	B1	19961016		
	R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
	FR 2648042	A1	19901214	FR 1989-7816	19890613 <--
	FR 2648042	B1	19940610		
	FR 2648043	A1	19901214	FR 1989-7817	19890613 <--
	FR 2648043	B1	19940722		
	US 5236951	A	19930817	US 1990-536741	19900612 <--
	AT 144139	E	19961115	AT 1990-401606	19900612 <--
	JP 03031212	A2	19910212	JP 1990-154967	19900613 <--
	JP 2844109	B2	19990106		
	US 5312961	A	19940517	US 1992-905483	19920629 <--
PRAI	FR 1989-7816		19890613 <--		
	FR 1989-7817		19890613 <--		
	FR 1989-1910		19890214 <--		
	US 1990-480207		19900214 <--		
	EP 1990-401606		19900612 <--		
	US 1990-622964		19901206 <--		
OS	MARPAT 115:57179				
GI					



AB Phenylethanamine derivs.  $\text{ACH}(\text{OX})\text{CH}_2\text{N}(\text{Y})\text{T}$  [A = benzofuran-2-yl, (un)substituted Ph; X = H, lower alkyl, lower alkanoyl; Y = H,  $\text{A}_1\text{CH}(\text{OH})\text{CH}_2$  ( $\text{A}_1$  = (un)substituted Ph), or XY = (lower carbalkoxy-substituted)  $\text{CH}_2$ , (oxo-substituted)  $\text{CH}_2\text{CH}_2$ , 1,3-propylene; T = Q ( $n = 1-3$ ; W = bond, O; Z = H, lower alkyl; R' = H, lower alkyl, OH, lower alkoxy, etc.; R'' = H, halo, lower alkyl, etc.), etc. (with provisions)], and their pharmaceutically acceptable salts, are provided for prepn. of ophthalmic pharmaceuticals for treatment of e.g. glaucoma. Thus, an ophthalmic soln. contained N-[(2S)-7-ethoxycarbonylmethoxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-(3-chlorophenyl)-2-hydroxyethanamine HCl (I) 1.0,  $\text{NaH}_2\text{PO}_4$  10.4,

Na<sub>2</sub>HPO<sub>4</sub> 2.4, chlorobutanol 5.0, hydroxypropylmethyl cellulose 5.0 mg, 1N NaOH to pH 7.4, and water to 1.0 mL. It was tested in an exptl. (rabbit) glaucoma model.

IT 107758-23-6 121216-30-6 121489-39-2  
 121489-40-5 121524-07-0 121524-08-1  
 129831-97-6 132990-67-1 132990-74-0  
 135025-87-5 135025-88-6 135025-89-7

RL: BIOL (Biological study)  
 (ophthalmic pharmaceutical contg., for glaucoma treatment)

L99 ANSWER 42 OF 49 HCPLUS COPYRIGHT 2002 ACS

AN 1991:185045 HCPLUS

DN 114:185045

TI Preparation of 2-amino-7-hydroxytetralin carboxyalkyl ethers as intermediates for spasmolytic phenylethanolaminotetralins

IN Guzzi, Umberto; Cecchi, Roberto

PA SANOFI, Fr.; Midy S.p.A.

SO Eur. Pat. Appl., 22 pp.

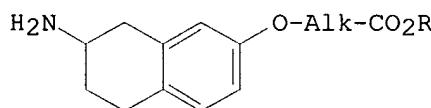
CODEN: EPXXDW

DT Patent

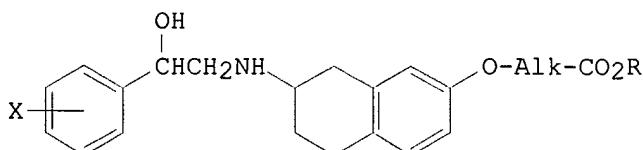
LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 383686	A1	19900822	EP 1990-400405	19900214 <--
	EP 383686	B1	19930804		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
	FR 2643076	A1	19900817	FR 1989-1910	19890214 <--
	FR 2643076	B1	19910621		
	CA 2009992	AA	19900814	CA 1990-2009992	19900214 <--
	AU 9049786	A1	19900823	AU 1990-49786	19900214 <--
	AU 642402	B2	19931021		
	ZA 9001121	A	19901128	ZA 1990-1121	19900214 <--
	JP 03014548	A2	19910123	JP 1990-33584	19900214 <--
	JP 2852681	B2	19990203		
	AT 92470	E	19930815	AT 1990-400405	19900214 <--
	ES 2060079	T3	19941116	ES 1990-400405	19900214 <--
PRAI	FR 1989-1910		19890214 <--		
	EP 1990-400405		19900214 <--		
OS	CASREACT 114:185045; MARPAT 114:185045				
GI					



I



II

AB Aminohydroxytetralin ethers I (Alk = C<sub>3</sub>-5 straight or branched alkylene; R = H, C<sub>1</sub>-4 alkyl) were prep'd. as intermediates for spasmolytic (no data) phenylethanolaminotetralins II (X = H, halo, C<sub>1</sub>-4 alkyl, CF<sub>3</sub>). For example, alkylation of 2-benzylamino-7-hydroxytetralin by Br(CH<sub>2</sub>)<sub>5</sub>CO<sub>2</sub>Et

using NaH in PhMe, followed by salification with HCl(g) in Me2CHOH, and then hydrogenolysis over Pd/C in EtOH at 60.degree., gave I.HCl [Alk = (CH<sub>2</sub>)<sub>5</sub>, R = Et]. This was neutralized and coupled with 3-chlorostyrene oxide in Me<sub>2</sub>SO in the presence of N-(trimethylsilyl)acetamide at 80.degree. to give, after chromatog. and salification, II.HCl (Alk and R as above; X = 3-Cl).

IT 132990-64-8P 132990-65-9P 132990-66-0P  
 132990-67-1P 132990-68-2P 132990-69-3P  
 132990-74-0P 132990-75-1P 132990-76-2P  
 132990-77-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, as spasmolytic)

L99 ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1990:565225 HCAPLUS

DN 113:165225

TI In vitro inhibition of intestinal motility by phenylethanaminotetralines: evidence of atypical .beta.-adrenoceptors in rat colon

AU Bianchetti, Alberto; Manara, Luciano

CS Res. Cent., Sanofi-Midy S.p.A., Milan, 20137, Italy

SO Br. J. Pharmacol. (1990), 100(4), 831-9

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB The new compds. phenylethanaminotetralines (PEAT), unlike the ref. .beta.-adrenoceptor agonists isoprenaline (Iso), ritodrine (Ri) and salbutamol (Sal), produced half-maximal inhibition of spontaneous motility of rat isolated proximal colon at substantially lower concns. (EC<sub>50</sub> 2.7-30 nM) than those inducing .beta.2-adrenoceptor-mediated responses (relaxation of guinea-pig isolated trachea and rat uterus) and had virtually no chronotropic action (EC<sub>50</sub> >3 .times. 10<sup>-5</sup> M) on the guinea-pig isolated atrium (a .beta.1-adrenoceptor-mediated response). The nonselective .beta.-adrenoceptor antagonists alprenolol and propranolol prevented the inhibition of rat colon motility by the PEAT with low and different potencies (pA<sub>2</sub> values around 7.5 and 6.5 resp.). Conversely alprenolol and propranolol had a higher and similar potency (pA<sub>2</sub> values around 9.0) in preventing typical .beta.1- or .beta.2-responses (increase in atrial frequency by Iso or tracheal relaxation by Ri or Sal). The selective .beta.-adrenoceptor antagonists CGP 20712A (.beta.1) and ICI 118,551 (.beta.2) either alone or in combination, did not prevent rat colon motility inhibition by the representative PEAT SR 58611A, which was also fully resistant to .alpha.-adrenoceptor, acetylcholine, dopamine, histamine, opioid and 5-hydroxytryptamine antagonists. These results indicate that the PEAT are a new class of .beta.-adrenoceptor agonists and suggest that their preferential intestinal action may be accounted for by selectivity for atypical .beta.-adrenoceptors, abundant in the rat colon and distinct from the currently recognized .beta.1 and .beta.2 subtypes.

IT 107758-36-1, SR 58375A 107758-39-4, SR 58373A  
 107758-41-8, SR 58372 107758-42-9, SR 58374  
 120839-53-4, SR 58572A 121216-30-6, SR 58590  
 121216-31-7, SR 58589 121216-32-8, SR 58575A  
 121524-09-2, SR 58611A 121524-10-5,  
 SR 58612A 121524-11-6, SR 58613A 129831-97-6, SR  
 58825A

RL: BIOL (Biological study)  
 (as atypical .beta.-adrenergic agonists, in colon)

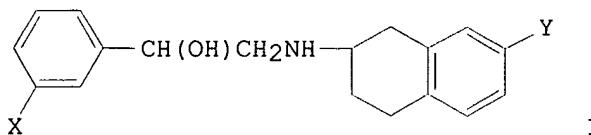
L99 ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1989:546279 HCAPLUS

DN 111:146279

TI New developments in .beta.-adrenergic-mediated control of intestinal

motility: gut-specific phenylethanolaminotetralines  
 AU Manara, Luciano; Bianchetti, Alberto; Croci, Tiziano; Giudice, Antonia  
 CS Res. Cent., Midy S.p.A., Milan, 20137, Italy  
 SO Fidia Res. Found. Symp. Ser. (1989), 2 (Neurochem. Pharmacol.-Tribute B. B. Brodie), 131-47  
 CODEN: FRFSEL; ISSN: 1040-0451  
 DT Journal  
 LA English  
 GI

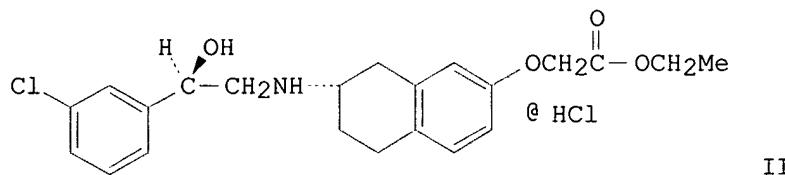
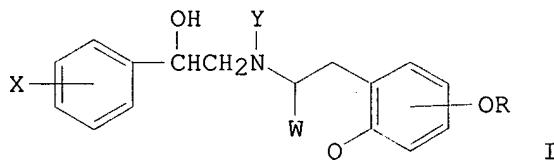


AB The pharmacol. of the title compds. (I; X = H or Cl; Y = OH or OCH<sub>2</sub>CO<sub>2</sub>Et) was studied in lab. animals and in *in vitro* preps. These compds. inhibit spontaneous motility of the rat colon *in vitro* and *in vivo* through an atypical  $\beta$ -adrenergic mechanism and, unlike ref.  $\beta$ -adrenoceptor agonists, are gut-specific. Structure-activity relations are discussed.  
 IT 107758-36-1, SR 58375A 107758-39-4, SR 58373A  
 107758-41-8, SR 58372 107758-42-9, SR 58374  
 120839-53-4, SR 58572A 120839-54-5, SR 58539B  
 121216-30-6, SR 58590 121216-31-7, SR 58589  
 121216-32-8, SR 58575A 121489-36-9, SR 58538B  
 RL: BIOL (Biological study)  
 (intestinal motility inhibition by,  $\beta$ -adrenergic mechanism in, structure in relation to)

L99 ANSWER 45 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1989:439023 HCAPLUS  
 DN 111:39023  
 TI O-alkylation process for N-(hydroxyaralkyl)phenylethanolamines useful as drug intermediates, and the N-protected intermediates thereof  
 IN Boigegrain, Robert; Cecchi, Roberto; Boveri, Sergio  
 PA SANOFI, Fr.; Midy S.p.A.  
 SO Eur. Pat. Appl., 13 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 303546	A2	19890215	EP 1988-402095	19880811 <--
	EP 303546	A3	19901017		
	EP 303546	B1	19941228		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	FR 2619379	A1	19890217	FR 1987-11498	19870812 <--
	FR 2619379	B1	19900112		
	FR 2632637	A1	19891215	FR 1988-7948	19880614 <--
	FR 2632637	B1	19901012		
	US 4927955	A	19900522	US 1988-230860	19880811 <--
	ES 2067483	T3	19950401	ES 1988-402095	19880811 <--
	JP 01066152	A2	19890313	JP 1988-202621	19880812 <--
	JP 2611816	B2	19970521		
	JP 09110811	A2	19970428	JP 1996-145620	19880812 <--
	DK 8902938	A	19891215	DK 1989-2938	19890614 <--
	DK 172256	B1	19980209		
	EP 347313	A2	19891220	EP 1989-401661	19890614 <--

EP 347313 A3 19901219  
 EP 347313 B1 19931215  
 R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE  
 JP 02196760 A2 19900803 JP 1989-153580 19890614 <--  
 JP 2829306 B2 19981125  
 AT 98628 E 19940115 AT 1989-401661 19890614 <--  
 ES 2062062 T3 19941216 ES 1989-401661 19890614 <--  
 US 5041606 A 19910820 US 1990-488137 19900305 <--  
 US 5159103 A 19921027 US 1992-825841 19920128 <--  
 US 5202466 A 19930413 US 1992-922486 19920731 <--  
 US 5347037 A 19940913 US 1993-114190 19930901 <--  
 PRAI FR 1987-11498 19870812 <--  
 FR 1988-7948 19880614 <--  
 US 1988-230860 19880811 <--  
 JP 1988-202621 19880812 <--  
 US 1989-365853 19890613 <--  
 EP 1989-401661 19890614 <--  
 US 1990-488137 19900305 <--  
 US 1991-698087 19910510 <--  
 US 1992-825841 19920128 <--  
 US 1992-909315 19920706 <--  
 OS CASREACT 111:39023; MARPAT 111:39023  
 GI



AB Title amines I (X = H, halo, CF<sub>3</sub>, alkyl; W = Me and Q = H; or WQ = CH<sub>2</sub>CH<sub>2</sub>; R = Y = H) undergo N-protection at Y, O-alkylation by Hal-CH<sub>2</sub>CO<sub>2</sub>R<sub>1</sub> (Hal = Cl, Br, iodo; R<sub>1</sub> = alkyl), and deblocking at Y to give I (Y = H, R = CH<sub>2</sub>CO<sub>2</sub>R<sub>1</sub>), which show spasmolytic activity. 2-Amino-7-methoxytetralin underwent resoln. by (+)- and (-)-mandelic acids, the latter giving the salt of (-)-amine, and then demethylation by 48% HBr to give (S)-(-)-2-amino-7-hydroxytetralin. This was condensed with (R)-3-chloromandelic acid to give the amide, which was reduced by BH<sub>3</sub>.SMe<sub>2</sub> to give N-[(2S)-7-hydroxy-1,2,3,4-tetrahydronaphth-2-yl]-(2R)-2-(3-chlorophenyl)-2-hydroxyethanamine. This compd. underwent quant. N-protection by di-tert-Bu dicarbonate in DMF, and the N-tert-butoxycarbonyl deriv. underwent O-alkylation of 7-OH by BrCH<sub>2</sub>CO<sub>2</sub>Et and K<sub>2</sub>CO<sub>3</sub> in refluxing Me<sub>2</sub>CO, deprotection by CF<sub>3</sub>CO<sub>2</sub>H in CH<sub>2</sub>Cl<sub>2</sub>, and saponification in EtOH to give 22% (ethoxycarbonylmethoxytetrahydronaphthyl) (chlorophenyl)hydroxyethanamine-HCl II. The IC<sub>50</sub> of II for inhibition of spontaneous motility of the rat colon in vitro was 3.5 times 10<sup>-9</sup> M.

IT 120839-53-4P 121216-30-6P 121216-31-7P  
 121216-32-8P 121251-85-2P 121312-24-1P  
 121489-40-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and reaction of, in prepn. of phenylethanolamine drugs)

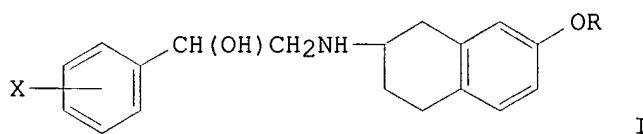
IT 120839-54-5P 121489-31-4P 121489-33-6P

121489-35-8P 121489-36-9P 121489-39-2P  
 121524-07-0P 121524-08-1P 121524-09-2P  
 121524-10-5P 121524-11-6P

RL: BAC (Biological activity or effector, except adverse); SPN  
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. of, as drug)

L99 ANSWER 46 OF 49 HCPLUS COPYRIGHT 2002 ACS  
 AN 1989:423206 HCPLUS  
 DN 111:23206  
 TI Process for the preparation of phenylethanolaminotetralins as drugs  
 IN Boigegrain, Robert; Cecchi, Roberto; Boveri, Sergio  
 PA SANOFI, Fr.; Midy S.p.A.  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA French  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 303545	A2	19890215	EP 1988-402094	19880811 <--
EP 303545	A3	19890524		
EP 303545	B1	19920617		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2619378	A1	19890217	FR 1987-11497	19870812 <--
FR 2619378	B1	19891215		
FR 2629453	A1	19891006	FR 1988-4219	19880330 <--
FR 2629453	B1	19901005		
FR 2632636	A1	19891215	FR 1988-7947	19880614 <--
FR 2632636	B1	19910322		
AT 77364	E	19920715	AT 1988-402094	19880811 <--
ES 2045164	T3	19940116	ES 1988-402094	19880811 <--
JP 01066149	A2	19890313	JP 1988-202622	19880812 <--
JP 2731913	B2	19980325		
US 5198586	A	19930330	US 1990-603247	19901025 <--
US 5235103	A	19930810	US 1992-990762	19921215 <--
PRAI FR 1987-11497		19870812 <--		
FR 1988-4219		19880330 <--		
FR 1988-7947		19880614 <--		
EP 1988-402094		19880811 <--		
US 1988-231374		19880811 <--		
US 1990-603247		19901025 <--		
OS MARPAT 111:23206				
GI				



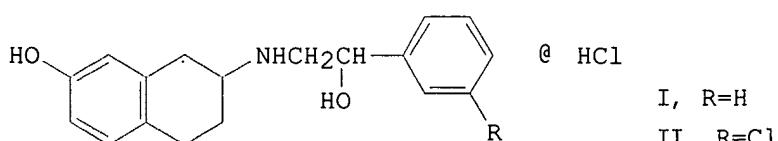
AB The title compds. I (X = H, halo, CF<sub>3</sub>, lower alkyl; R = H, Me group substituted with CO<sub>2</sub>H, carbalkoxy) and pharmaceutically acceptable salts thereof, useful as drugs (no data), were prep'd. Amidation of 3-chloromandelic acid with 2-amino-7-hydroxytetralin, followed by redn. by LiAlH<sub>4</sub>, gave N-(7-hydroxy-1,2,3,4-tetrahydronaphth-2-yl)-2-(3-chlorophenyl)-2-hydroxyethanamine.  
 IT 107758-16-7P 107758-23-6P 107758-43-0P  
 120839-53-4P 121216-30-6P 121216-31-7P  
 121216-32-8P 121216-37-3P 121251-85-2P

121312-24-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn. of, as drug)

L99 ANSWER 47 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1989:225302 HCAPLUS  
 DN 110:225302  
 TI Inhibition of rat colonic motility and cardiovascular effects of new gut-specific beta-adrenergic phenylethanolaminotetralines  
 AU Giudice, Antonina; Croci, Tiziano; Bianchetti, Alberto; Manara, Luciano  
 CS Res. Cent., MIDY S.p.A., Milan, 20137, Italy  
 SO Life Sci. (1989), 44(19), 1411-17  
 CODEN: LIFSAK; ISSN: 0024-3205  
 DT Journal  
 LA English  
 AB The ability of the new putative .beta.-adrenergic agonists, the phenylethanolaminotetralines (PEATs), to inhibit intestinal motility was studied in relation to their cardiovascular effects in anesthetized rats. The representative PEATs SR 58375A, SR 58572A, and SR 58539B and the ref. .beta.-adrenergic agonists isoproterenol, salbutamol, and ritodrine caused dose-related inhibition of proximal colon spontaneous motility: ED50 210, 92, and 19; 5.6, 176, and 201 .mu.g/kg, i.v., resp. This inhibition was prevented by the .beta.-adrenergic antagonist alprenolol, but not by desipramine (which prevented the inhibition of clonic motility by tyramine and enhanced that by norepinephrine). The minimal EDs (MED) of isoproterenol, salbutamol, and ritodrine raising heart rate and (or) lowering blood pressure (by 10-20%), was substantially lower (about 1/10 to 1/150) than their ED50 for inhibition of colonic motility. The MED raising heart rate of the 3 PEATs, on the other hand, was .apprx.2 (SR 58375A and SR 58572A) to 5 (SR 58539B) times their ED50 for inhibition of colonic motility. None of the PEATs lowered blood pressure up to the top tested dose. Therefore the PEATs may prove preferable to the currently best tolerated .beta.-adrenoceptor agonists, because they appear less liable to induce cardiovascular side effects. This supports the prospective therapeutic interest of PEATs for intestinal hypermotility disorders.  
 IT 107758-36-1 120839-53-4 120839-54-5  
 RL: BIOL (Biological study)  
 (intestine motility decrease by, cardiovascular effect in relation to)

L99 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1988:198231 HCAPLUS  
 DN 108:198231  
 TI Inhibition of rat colon motility by stimulation of atypical beta-adrenoceptors with new gut-specific agents  
 AU Croci, Tiziano; Cecchi, Roberto; Tarantino, Antonio; Aureggi, Giulio; Bianchetti, Alberto; Boigegrain, Robert; Manara, Luciano  
 CS Res. Cent., MIDY S.p.A., Milan, 20137, Italy  
 SO Pharmacol. Res. Commun. (1988), 20(2), 147-51  
 CODEN: PLRCAT; ISSN: 0031-6989  
 DT Journal  
 LA English  
 GI



AB The new putative .beta.-adrenergic agonists SR 58306A (I) and SR 58339A (II) were studied in vitro in comparison with ref. compds. I and II, unlike isoprenaline and the .beta.2-selective adrenergic agonists salbutamol and ritodrine, potently inhibited rat colon spontaneous contractions. They did not increase guinea pig atrium frequency or relax guinea pig trachea. The nonselective .beta.-adrenergic antagonists alprenolol, pindolol, and propranolol competitively antagonized the action of I on the colon, whereas the selective antagonists atenolol (.beta.1-) and ICI 118551 (.beta.2-) did not. In the same prepn. only alprenolol competitively antagonized isoprenaline; the antagonism by either pindolol or propranolol was not competitive. These results suggest that in the rat colon isoprenaline interacts with different .beta.-receptor subclasses, whereas the 2 new gut-specific compds. inhibit colonic motility by selectively stimulating atypical .beta.-adrenoceptors.

IT 107758-16-7 107758-24-7

RL: BIOL (Biological study)  
(intestine motility inhibition by, atypical .beta.-adrenergic receptors in relation to)

L99 ANSWER 49 OF 49 HCAPLUS COPYRIGHT 2002 ACS

AN 1987:156084 HCAPLUS

DN 106:156084

TI Pheylethanolaminotetralins, a process for their preparation, and pharmaceutical compositions containing them

IN Cecchi, Roberto; Boigegrain, Robert; Bianchetti, Alberto; Poggesi, Elena; Croci, Tiziano

PA SANOFI, Fr.; Midy S.p.A.

SO Eur. Pat. Appl., 40 pp.

CODEN: EPXXDW

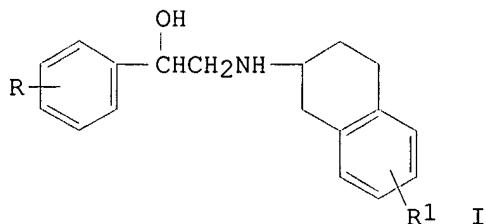
DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 211721	A1	19870225	EP 1986-401494	19860704 <--
	EP 211721	B1	19891004		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	FR 2584712	A1	19870116	FR 1985-10559	19850710 <--
	FR 2584712	B1	19871127		
	FR 2598410	A1	19871113	FR 1986-6626	19860507 <--
	FR 2598410	B1	19880916		
	IL 79323	A1	19900319	IL 1986-79323	19860702 <--
	ES 2002717	A6	19881001	ES 1986-121	19860704 <--
	AT 46900	E	19891015	AT 1986-401494	19860704 <--
	ZA 8605082	A	19870325	ZA 1986-5082	19860708 <--
	CA 1260493	A1	19890926	CA 1986-513357	19860708 <--
	NO 8602773	A	19870112	NO 1986-2773	19860709 <--
	NO 165190	B	19901001		
	NO 165190	C	19910109		
	AU 8659889	A1	19870115	AU 1986-59889	19860709 <--
	AU 596976	B2	19900524		
	FI 8602907	A	19870111	FI 1986-2907	19860710 <--
	FI 85692	B	19920214		
	FI 85692	C	19920525		
	DK 8603285	A	19870111	DK 1986-3285	19860710 <--
	DK 167353	B1	19931018		
	JP 62063549	A2	19870320	JP 1986-163514	19860710 <--
	JP 05071581	B4	19931007		
	US 4707497	A	19871117	US 1986-883961	19860710 <--
PRAI	FR 1985-10559		19850710 <--		
	FR 1986-6626		19860507 <--		
	EP 1986-401494		19860704 <--		

OS CASREACT 106:156084  
GI



AB The title compds. [I; R = H, halo, alkyl, CF<sub>3</sub>; R<sub>1</sub> = OH, (substituted) alkoxy] and their salts, useful as lipolytic agents, are prepd. A MeOH soln. of 0.8 g 2-amino-1-phenylethanol and 1 g 7-methoxy-2-tetralone was reacted at 35.degree. over 4 h in the presence of H<sub>2</sub> and PtO<sub>2</sub> to give 37% I.HCl (R = H, R<sub>1</sub> = 7-MeO) which (30 mg) was the active ingredient in a sterile parenteral soln. also contg. 5 mg NaCl and 2 mL distd. H<sub>2</sub>O. The title compds. show strong lipolytic activity both in vitro and in vivo in brown and white adipose tissue.

IT 107758-10-1P 107758-11-2P 107758-12-3P  
107758-13-4P 107758-14-5P 107758-15-6P  
107758-16-7P 107758-18-9P 107758-19-0P  
107758-20-3P 107758-21-4P 107758-22-5P  
107758-23-6P 107758-24-7P 107758-25-8P  
107758-26-9P 107758-27-0P 107758-28-1P  
107758-29-2P 107758-30-5P 107758-31-6P  
107758-32-7P 107758-33-8P 107758-34-9P  
107758-35-0P 107758-36-1P 107758-37-2P  
107758-38-3P 107758-39-4P 107758-40-7P  
107758-41-8P 107758-42-9P 107758-43-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as antiobesity agent)

=> fil reg  
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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

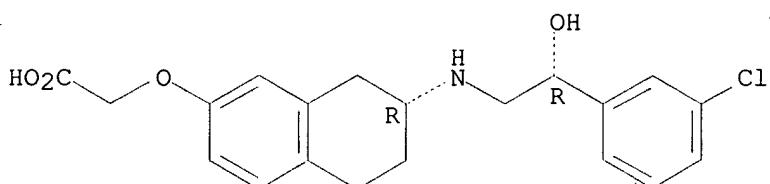
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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L95 ANSWER 1 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 191533-25-2 REGISTRY  
 CN Acetic acid, [(7R)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetic acid, [7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, [R-(R\*,R\*)]-  
 OTHER NAMES:  
 CN SR 58878  
 FS STEREOSEARCH  
 MF C20 H22 Cl N O4  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



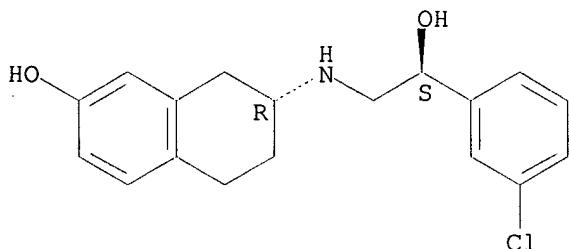
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1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:61038

L95 ANSWER 5 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 158223-17-7 REGISTRY  
 CN 2-Naphthalenol, 7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, hydrochloride, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C18 H20 Cl N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS  
 CRN (121216-30-6)

Absolute stereochemistry.

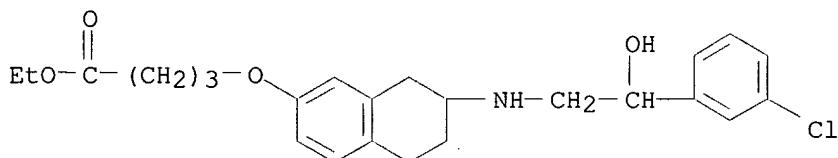


HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

L95 ANSWER 10 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 132990-76-2 REGISTRY  
 CN Butanoic acid, 4-[[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C24 H30 Cl N O4  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

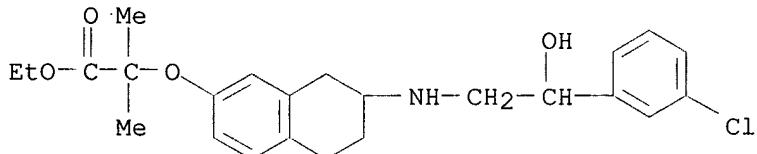


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 114:185045

L95 ANSWER 15 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 132990-67-1 REGISTRY  
 CN Propanoic acid, 2-[[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-2-methyl-, ethyl ester, hydrochloride (9CI) (CA INDEX NAME)  
 MF C24 H30 Cl N O4 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 CRN (132990-77-3)



● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

REFERENCE 2: 114:185045

L95 ANSWER 20 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 121489-39-2 REGISTRY  
 CN Acetic acid, [[7-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-

tetrahydro-2-naphthalenyl]oxy]-, methyl ester, hydrochloride, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

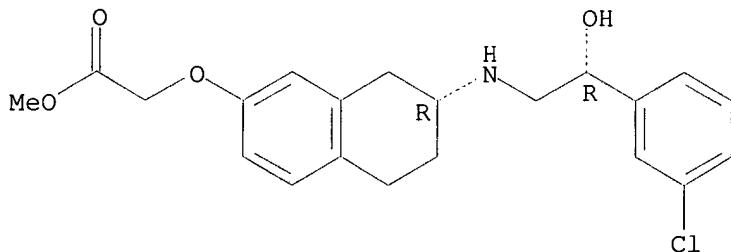
MF C21 H24 Cl N O4 . Cl H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (121489-31-4)

Absolute stereochemistry.



● HCl

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:57179

REFERENCE 2: 111:39023

L95 ANSWER 25 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 121216-32-8 REGISTRY

CN 2-Naphthalenol, 7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, hydrochloride, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58575A

FS STEREOSEARCH

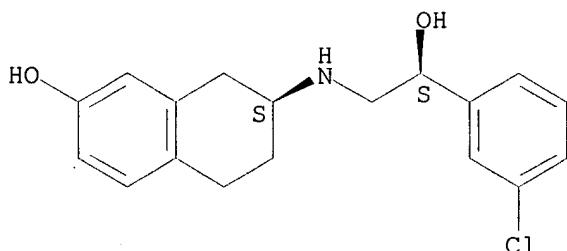
DR 121489-41-6

MF C18 H20 Cl N O2 . Cl H

SR CA

LC STN Files: CA, CAPLUS, DDFU, DRUGU, USPATFULL

Absolute stereochemistry.



HCl

6 REFERENCES IN FILE CA (1962 TO DATE)

6 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 113:165225

REFERENCE 4: 111:146279

REFERENCE 5: 111:39023

REFERENCE 6: 111:23206

L95 ANSWER 30 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-42-9 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58374

FS STEREOSEARCH

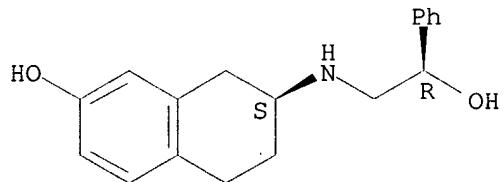
MF C18 H21 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:165225

REFERENCE 2: 111:146279

REFERENCE 3: 106:156084

L95 ANSWER 35 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-37-2 REGISTRY

CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, hydrochloride, [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN SR 58374A

FS STEREOSEARCH

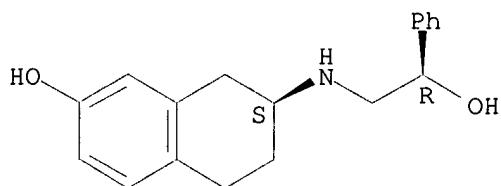
MF C18 H21 N O2 . Cl H

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CRN (107758-42-9)

Absolute stereochemistry.



● HCl

3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 121:230444

REFERENCE 2: 117:185365

REFERENCE 3: 106:156084

L95 ANSWER 40 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-32-7 REGISTRY

CN Benzenemethanol, .alpha.-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]-, [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

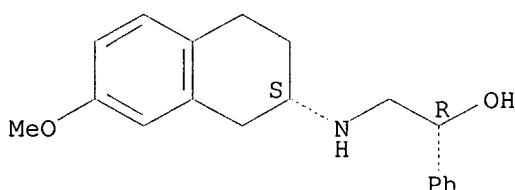
MF C19 H23 N O2

CI COM

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 45 OF 61 REGISTRY COPYRIGHT 2002 ACS

RN 107758-26-9 REGISTRY

CN 2-Naphthalenol, 7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, (2E)-2-butenedioate (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Naphthalenol, 7-[(2-(3-chlorophenyl)-2-hydroxyethyl]amino]-5,6,7,8-tetrahydro-, (E)-2-butenedioate (salt)

FS STEREOSEARCH

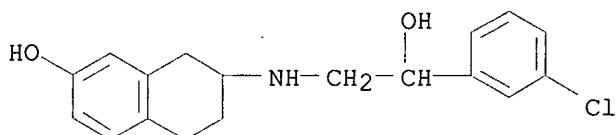
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

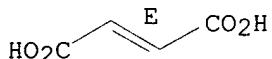
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 CMF C18 H20 Cl N O2



CM 2

CRN 110-17-8  
 CMF C4 H4 O4

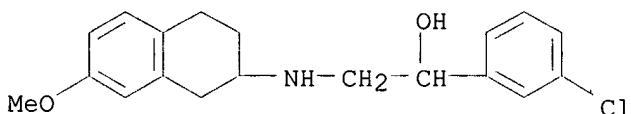
Double bond geometry as shown.



1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 50 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 107758-21-4 REGISTRY  
 CN Benzenemethanol, 3-chloro-.alpha.-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl-, hydrochloride (9CI) (CA INDEX NAME)  
 MF C19 H22 Cl N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 CRN (107758-22-5)



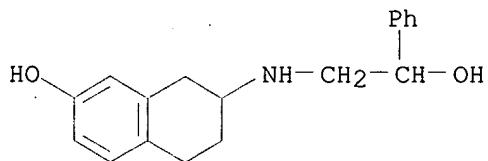
● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 55 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 107758-16-7 REGISTRY  
 CN 2-Naphthalenol, 5,6,7,8-tetrahydro-7-[(2-hydroxy-2-phenylethyl)amino]-, hydrochloride (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN SR 58306A  
 MF C18 H21 N O2 . Cl H

SR CA  
 LC STN Files: ADISINSIGHT, BIOBUSINESS, BIOSIS, CA, CAPLUS, DDFU, DRUGU,  
 MEDLINE, PHAR, PROMT, USPATFULL  
 CRN (107758-43-0)



● HCl

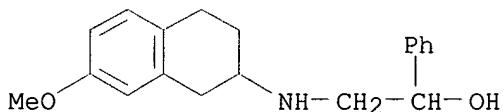
3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 111:23206

REFERENCE 2: 108:198231

REFERENCE 3: 106:156084

L95 ANSWER 60 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 107758-11-2 REGISTRY  
 CN Benzenemethanol, .alpha.-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C19 H23 N O2  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

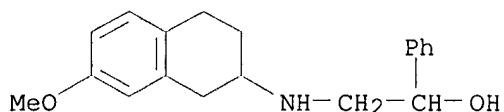


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 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

L95 ANSWER 61 OF 61 REGISTRY COPYRIGHT 2002 ACS  
 RN 107758-10-1 REGISTRY  
 CN Benzenemethanol, .alpha.-[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)  
 MF C19 H23 N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 CRN (107758-11-2)



● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 106:156084

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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

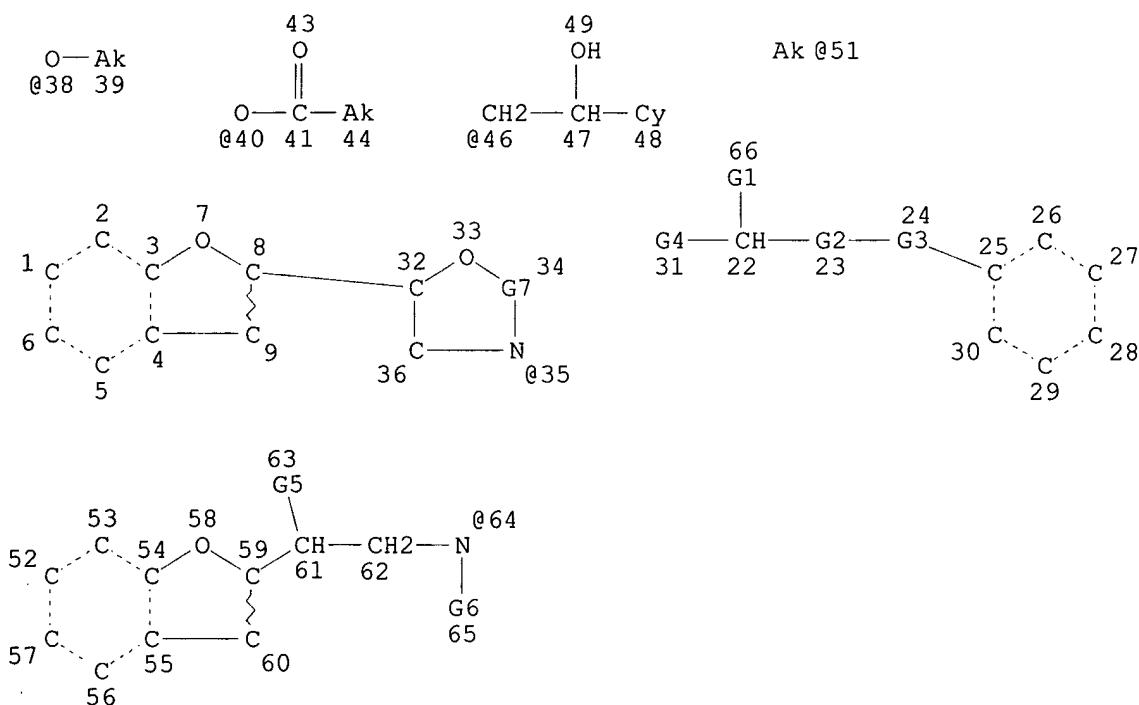
TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sta que 1102  
L100 STR



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VAR G1=H/51
REP G2=(1-3) CH2
REP G3=(0-1) O
VAR G4=35/64
VAR G5=OH/38/40
VAR G6=H/46
REP G7=(1-3) C
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 39
CONNECT IS E1 RC AT 44
CONNECT IS E1 RC AT 51
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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GRAPH ATTRIBUTES:
RSPEC 32 8 25
NUMBER OF NODES IS 50

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STEREO ATTRIBUTES: NONE
L102          75 SEA FILE=REGISTRY SSS FUL L100

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SEARCH TIME: 00.00.02

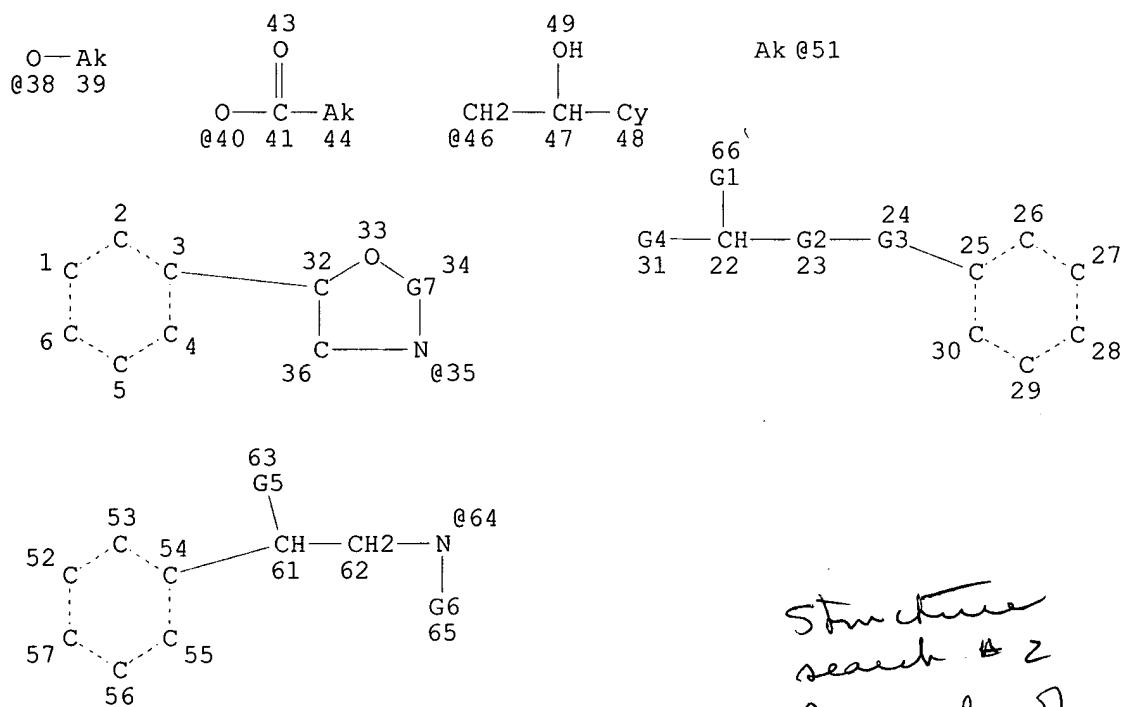
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75 ANSWERS
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=> d sta que 1105
L103          STR

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VAR G1=H/51
REP G2=(1-3) CH2
REP G3=(0-1) O
VAR G4=35/64
VAR G5=OH/38/40
VAR G6=H/46
REP G7=(1-3) C
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 39
CONNECT IS E1 RC AT 44
CONNECT IS E1 RC AT 51
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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## GRAPH ATTRIBUTES:

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RSPEC 25 32 3 54
NUMBER OF NODES IS 44

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## STEREO ATTRIBUTES: NONE

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L105 4534 SEA FILE=REGISTRY SSS FUL L103

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100.0% PROCESSED 248795 ITERATIONS
SEARCH TIME: 00.00.11

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4534 ANSWERS

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=> d his l102-

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      SAV L102 JKIM44531E/A
L103 STR L100
L104 17 S L103
L105 4534 S L103 FUL
      SAV L105 JKIM44531F/A

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Structure  
search # 2  
for words of  
Formula IV

L106 STR L103  
 L107 4607 S L102 OR L105  
 L108 50 S L106 CSS SAM SUB=L107  
 L109 2224 S L106 CSS FUL SUB=L107  
       SAV L109 JKIM44531G/A  
 L110 2 S L102 AND L109  
 L111 73 S L102 NOT L110

FILE 'HCAPLUS' ENTERED AT 10:35:48 ON 13 OCT 2002  
 L112 10 S L111  
 L113 10 S L112 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L114 5 S L113 AND (1 OR 63)/SC, SX  
 L115 3 S L111 (L) (THU OR BAC)/RL  
 L116 6 S L114, L115  
 L117 4 S L112 NOT L116  
       SEL DN AN 2  
 L118 3 S L117 NOT E12-E14  
 L119 9 S L116, L118

FILE 'REGISTRY' ENTERED AT 10:39:26 ON 13 OCT 2002  
 L120 2222 S L109 NOT L110  
 L121 2312 S L105 NOT L120

FILE 'HCAPLUS' ENTERED AT 10:40:08 ON 13 OCT 2002  
 L122 508 S L120  
 L123 2818 S L121  
 L124 78 S L120 (L) THU/RL  
 L125 666 S L121 (L) THU/RL  
 L126 324 S L122, L123 AND 63/SC  
 L127 505 S L124-L126 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L128 1213 S BETA 3 (L) ADRENOCEPTOR  
 L129 886 S BETA 3 (L) ADRENERGIC (L) RECEPTOR  
 L130 24 S L127 AND L128, L129

FILE 'REGISTRY' ENTERED AT 10:42:57 ON 13 OCT 2002

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 10:43:18 ON 13 OCT 2002  
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FILE COVERS 1907 - 13 Oct 2002 VOL 137 ISS 16  
 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d 1130 bib abs hitrn retable tot

L130 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2002 ACS  
AN 1999:282201 HCAPLUS  
DN 130:311793  
TI Preparation of amides as antidiabetics  
IN Maruyama, Tatsuya; Suzuki, Takayuki; Onda, Kenichi; Hayakawa, Masahiko;  
Moritomo, Hiroyuki; Kimizuka, Tetsuya; Matsui, Tetsuo  
PA Yamanouchi Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 45 pp.  
CODEN: P1XXXD2

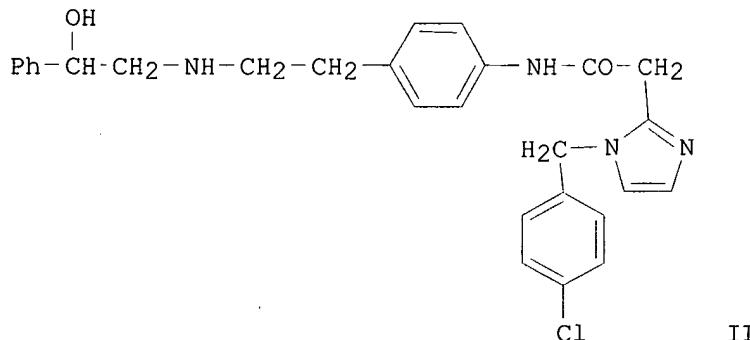
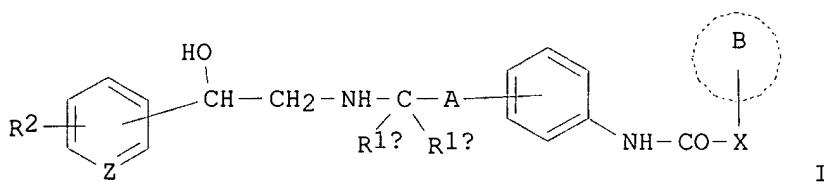
PT Patent

LA Japanese

EX-3000  
FAN, CNT 1

PATENT N

PATENT



AB The title compds. I [ring B = an optionally substituted heteroaryl optionally fused with a benzene ring; X = a bond, lower alkylene or lower alkenylene (optionally substituted by hydroxy or lower alkyl), carbonyl, or NH (further details related to X are given); A = a lower alkylene or a group represented by (lower alkylene)-O; R1a and R1b = hydrogen or lower alkyl; R2 = hydrogen or halogeno; and Z = nitrogen or CH] are prep'd. I are useful as diabetes remedies which not only function to accelerate the secretion of insulin and enhance insulin sensitivity but also have an anti-obesity action and an antihyperlipemic action based on their selective stimulative action on  $\beta$ .3 receptor. For example, imidazole deriv. II was prep'd. Compds. of this invention significantly decreased blood sugar in mice.

IT 223672-09-1P 223672-10-4P 223672-11-5P  
 223672-12-6P 223672-13-7P 223672-14-8P  
 223672-15-9P 223672-16-0P 223672-17-1P  
 223672-18-2P 223672-19-3P 223672-20-6P  
 223672-21-7P 223672-22-8P 223672-23-9P  
 223672-24-0P 223672-25-1P 223672-26-2P  
 223672-27-3P 223672-29-5P 223672-30-8P  
 223672-31-9P 223672-32-0P 223672-34-2P  
 223672-36-4P 223672-38-6P 223672-40-0P  
 223672-42-2P 223672-44-4P 223672-46-6P  
 223672-47-7P 223672-48-8P 223672-49-9P  
 223672-50-2P 223672-51-3P 223672-52-4P  
 223672-53-5P 223672-55-7P 223672-58-0P  
 223672-60-4P 223672-63-7P 223672-65-9P  
 223672-66-0P 223672-67-1P 223672-68-2P  
 223672-69-3P 223672-70-6P 223672-71-7P  
 223672-72-8P 223672-73-9P 223672-74-0P  
 223672-75-1P 223672-76-2P 223672-77-3P  
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 223672-84-2P 223672-85-3P 223672-86-4P  
 223672-87-5P 223672-88-6P 223672-89-7P  
 223672-90-0P 223672-91-1P 223672-92-2P  
 223672-93-3P 223672-94-4P 223672-95-5P  
 223672-96-6P 223672-97-7P 223672-98-8P  
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 223673-02-7P 223673-03-8P 223673-04-9P

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 223673-59-4P 223673-60-7P 223673-61-8P  
 223673-62-9P 223673-63-0P 223673-64-1P  
 223673-65-2P 223673-66-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of amides as antidiabetics)

## RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Merck & Co Inc	1995			JP 07-10827 A	HCAPLUS
Merck & Co Inc	1995			US 5553475 A	
Merck & Co Inc	1995			WO 93/19861 A1	
Merck & Co Inc	1997			JP 09-512275 A	
Merck & Co Inc	1997			US 5541197 A	HCAPLUS
Merck & Co Inc	1997			EP 757674 A1	HCAPLUS
Merck & Co Inc	1997			WO 95/29159 A1	HCAPLUS
Takeda Chem Ind Ltd	1996			JP 08-92228 A	HCAPLUS
Takeda Chem Ind Ltd	1996			US 5614544 A	HCAPLUS
Takeda Chem Ind Ltd	1996			EP 643050 A1	HCAPLUS

L130 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:32572 HCAPLUS

DN 130:76508

TI Functional evidence for atypical .beta.-adrenoceptors in human-isolated taenia coli

AU Kelly, J.; Sennitt, M. V.; Stock, M. J.; Arch, J. R. S.

CS SmithKline Beecham Pharmaceuticals, Welwyn, AL6 9AR, UK

SO Pharmacology Reviews and Communications (1998), 10(2), 143-152  
CODEN: PHRCF6

PB Harwood Academic Publishers

DT Journal

LA English

AB .beta.-Adrenoceptor agonists displayed a rank order of potency for relaxation of spontaneous or K-induced tone in human isolated taenia coli of (-)-isoprenaline .gtoreq. noradrenaline > fenoterol = CGP 12177, CGP 12177 being a partial agonist. In the presence of a concn. of CGP 12177 (100 .mu.M) that exerted a max. effect, isoprenaline (100 .mu.M) had no further effect. The rodent .beta.3-adrenoceptor agonist BRL-37344 had no effect and isoprenaline elicited a normal response in the presence of BRL-37344 (100 .mu.M). Isoprenaline-induced relaxations of spontaneous and carbachol-induced tone were antagonized by the selective .beta.1-adrenoceptor antagonist CGP 20712A (30 nM; apparent pA2 value=8.9) but not by the .beta.2-adrenoceptor antagonist ICI 118,551 (30 nM). The .beta.1/.beta.2-adrenoceptor antagonist nadolol (1, 10, and 100 .mu.M) antagonized isoprenaline competitively with a pA2 value of only 6.7. This suggests that nadolol blocks the action of isoprenaline at a non-.beta.1/.beta.2-adrenoceptor (possibly a .beta.3-adrenoceptor), although a component of .beta.1-adrenoceptor antagonism may also be involved. Nadolol (1, 10, and 100 .mu.M) failed to produce any consistent shift of the concn.-response curve to CGP 12177, again suggesting the involvement of

non-.beta.1/.beta.2-**adrenoceptors**, although the lack of any antagonism by 100 .mu.M nadolol questions the role of **.beta.3-adrenoceptors**. These results indicate a role for not only **.beta.1**- but also **.beta.3** and/or so-called putative **".beta.4"-adrenoceptors** in human taenia coli.

IT 13392-18-2, Fenoterol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(selective **.beta.-adrenoceptor** agonists reaction in human taenia coli relaxation)

## RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Ahlquist, R	1948	153	586	American Journal of HCAPLUS	
Arch, J	1996	20	191	International Journa HCAPLUS	
Arch, J	1993	13	663	Medical Research Rev HCAPLUS	
Arch, J	1984	309	163	Nature HCAPLUS	
Arch, J	1997	9	141	Pharmacology Reviews HCAPLUS	
Arunlakshana, O	1959	14	48	British Journal of P HCAPLUS	
Berkowitz, D	1995	289	223	European Journal of HCAPLUS	
Bianchetti, A	1990	100	831	British Journal of P HCAPLUS	
Blin, N	1993	44	1094	Journal of Pharmacol HCAPLUS	
Blum-Kaelin, D	1991		315	Adrenoceptors Struct HCAPLUS	
Bond, R	1988	95	723	British Journal of P HCAPLUS	
Bucknell, A	1964	23	164	British Journal of P MEDLINE	
De Ponti, F	1996	117	1374	British Journal of P HCAPLUS	
Dreyer, A	1980	27	2087	Life Sciences HCAPLUS	
Furchtgott, R	1972		283	Handbook of Experime HCAPLUS	
Gauthier, C	1996	98	556	Journal of Clinical HCAPLUS	
Gillespie, J	1977	267	767	Journal of Physiolog MEDLINE	
Hedges, A	1971	41	426P	British Journal of P HCAPLUS	
Hoey, A	1996	119	564	British Journal of P HCAPLUS	
Kaumann, A	1996	118	2085	British Journal of P HCAPLUS	
Kaumann, A	1996	117	93	British Journal of P HCAPLUS	
Kaumann, A	1997	18	70	Trends in Pharmacolo HCAPLUS	
Kelly, J	1996	120	207P	British Journal of P	
Kelly, J	1996	16	205	Journal of Autonomic HCAPLUS	
Kirkham, D	1992	105	231P	British Journal of P	
Krief, S	1993	91	344	Journal of Clinical HCAPLUS	
Landi, M	1993	53	344	Life Sciences	
Lands, A	1967	214	597	Nature HCAPLUS	
Lemoine, H	1991	344	56	Naunyn-Schmiedeberg' HCAPLUS	
Levy, B	1959	127	150	Journal of Pharmacol HCAPLUS	
Maggi, C	1997	18	351	Trends in Pharmacolo HCAPLUS	
Manara, L	1995	9	332	Fundamentals of Clin HCAPLUS	
McLaughlin, D	1991	104	152P	British Journal of P	
Middlemiss, D	1986	120	51	European Journal of HCAPLUS	
Molenaar, P	1997	24	647	Clinical and Experim HCAPLUS	
Oriowo, M	1996	7	229	Pharmacology Communi HCAPLUS	
Pak, M	1996	16	1	Journal Of Receptor HCAPLUS	
Roberts, S	1997	120	1527	British Journal of P HCAPLUS	
Sennitt, M	1998	285	1084	J Pharmacol Exp Ther HCAPLUS	
Sugasawa, T	1997	272	21244	Journal of Biologica HCAPLUS	
Wilson, C	1984	100	309	European Journal of HCAPLUS	
Wilson, S	1996	279	214	Journal of Pharmacol HCAPLUS	

L130 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:784989 HCAPLUS

DN 130:134103

TI The effects of the **.beta.3-adrenoceptor**  
agonist BRL 35135 on UCP isoform mRNA expression

AU Emilsson, Valur; Summers, Roger J.; Hamilton, Stephanie; Liu, Yong-Ling;  
 Cawthorne, Michael A.  
 CS Clore Laboratory, University of Buckingham, Buckingham, MK18 1EG, UK  
 SO Biochemical and Biophysical Research Communications (1998),  
 252(2), 450-454  
 CODEN: BBRCA9; ISSN: 0006-291X  
 PB Academic Press  
 DT Journal  
 LA English  
 AB The mitochondrial uncoupling protein UCP-1 uncouples respiration from ATP synthesis in brown adipose tissue (BAT) and thus energy is dissipated as heat. Recently two further isoforms have been identified which may play a similar role in other tissues. We have detd. the effects of the rodent-selective **.beta.3-adrenoceptor** (.  
**.beta.3-AR**) agonist BRL 35135, on **.beta.**  
 3-AR and UCP mRNA levels in tissues from lean and obese (fa/fa) Zucker rats. **.beta.3-AR** mRNA levels were reduced in fa/fa white (WAT) and brown (BAT) adipose tissue relative to levels in lean littermates. BRL 35135 treatment increased expression levels of **.beta.3-AR** mRNA in both genotypes. UCP-2 and UCP-3 mRNA levels in BAT, WAT and skeletal muscle were reduced by 2-3 fold in the fa/fa rats relative to the lean rats. We confirm that BRL 35135 increases BAT UCP-1 mRNA in lean rats, and find that BAT UCP-3 mRNA was reduced 3.2 fold, with no changes in UCP-2 expression. In WAT BRL 35135 increased UCP-2 and UCP-3 expression 2-3 fold in both lean and fa/fa rats. In lean rats, skeletal muscle UCP-3 mRNA was increased 2.3 fold by BRL 35135 whereas UCP-2 was reduced by 2.2 fold. BRL 35135 had no effects on UCP-2 and UCP-3 expression in skeletal muscle of the fa/fa rats. Our results demonstrate that mechanisms regulating UCP isoform synthesis in fa/fa rats are impaired and that WAT could be involved in the thermogenic response of BRL 35135. (c) 1998 Academic Press.

IT 86615-96-5, BRL 35135  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (.**.beta.3-adrenoceptor** agonist BRL 35135  
 effect on UCP isoform mRNA expression)

## RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (R WK)	Referenced File (HCAPLUS)
Arbeeny, C	1995	268	E678	Am J Physiol	
Arch, J	1984	8	1	Int J Obesity	
Arch, J	1993	13	663	Med Res Rev	
Arch, J	1984	309	163	Nature	
Boss, O	1997	408	39	FEBS Lett	
Boss, O	1996	20	68	Int J Obesity	
Boss, O	1998	273	5	J Biol Chem	
Brooks, S	1980	286	274	Nature	
Cawthorne, M	1992	55	252S	Am J Clin Nutr	
Chomczynski, P	1987	162	156	Anal Biochem	
Cusin, I	1998	47	1014	Diabetes	
Dukas, K	1993	215	66	Anal Biochem	
Emorine, L	1989	245	1118	Science	
Enerback, S	1997	387	90	Nature	
Evans, B	1996	117	210	Brit J Pharmacol	
Fleury, C	1997	15	269	Nature Genet	
Foster, D	1979	57	257	Can J Physiol Pharma	
Gong, D	1997	272	24129	J Biol Chem	
Hidaka, S	1998	23	178	Biochim Biophys Acta	
Jacobsson, A	1985	260	16250	J Biol Chem	
Krook, A	1998	47	1528	Diabetes	
Liu, Q	1998	207	1	Gene	

Liu, Y	1995	114	880	Brit J Pharmacol	
Liu, Y	1996	117	1355	Brit J Pharmacol	HCAPLUS
Matsuda, J	1997	418	200	FEBS Lett	HCAPLUS
Millet, L	1997	100	2665	J Clin Invest	HCAPLUS
Nagase, L	1996	97	2898	J Clin Invest	
Oberkofler, H	1997	38	2125	J Lipid Res	HCAPLUS
Revelli, J	1997	100	1098	J Clin Invest	HCAPLUS
Rothwell, N	1981	389	237	Pflugers Arch	HCAPLUS
Savontaus, E	1998	246	899	Biochem Biophys Res	HCAPLUS
Silva, J	1997	136	251	Eur J Endocrinol	HCAPLUS
Smith, S	1990		177	New Anti-Diabetic Dr	HCAPLUS
Thurlby, P	1986	64	1111	Can J Physiol Pharma	HCAPLUS
Trayhurn, P	1996	228	605	Biochem Biophys Res	HCAPLUS
Vidal-Puig, A	1997	235	79	Biochem Biophys Res	HCAPLUS
Weigle, D	1998	47	298	Diabetes	HCAPLUS
Wilson, C	1984	4	309	Eur J Pharmacol	

L130 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:535771 HCAPLUS

DN 129:198012

TI Preparation of phenethanol derivatives and their use as antidiabetic agents

IN Maruyama, Tatsuya; Onta, Kenichi; Hayakawa, Akihiko; Matsui, Tetsuo

PA Yamanouchi Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10218861	A2	19980818	JP 1997-21870	19970204 <--

OS MARPAT 129:198012

GI For diagram(s), see printed CA Issue.

AB The derivs. I [ring B = II, III, IV; X, Y = O, S, NR6; R1 = H, lower alkyl; R2 = H, lower alkyl,  $\text{NHSO}_2\text{Me}$ ,  $\text{NHCOR}_3$ ; R3 = H, lower alkyl, mono- or di(lower alkylamino), aryl, aralkyl; R4, R5 = H, lower alkyl, amino; R6 = H, lower alkyl, aralkyl] or their salts as **.beta.3-adrenoceptor** agonists are prep'd. Antidiabetic agents contg. I or thir salts as active ingredients are also claimed. I decreased blood glucose of obese and hyperglycemic kk mice with insulin resistance upon both oral and percutaneous administrations. I also increased insulin secretion in normal rats. Prepn. of some of I was given.

IT 211636-04-3P 211636-05-4P 211636-06-5P  
 211636-07-6P 211636-08-7P 211636-09-8P  
 211636-10-1P 211636-11-2P 211636-13-4P  
 211636-17-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of antidiabetic phenethanol derivs. as **.beta.3-adrenoceptor** agonists)

L130 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:471470 HCAPLUS

DN 129:108907

TI Preparation of N-[3-(2-aralkylamino-1-hydroxyethyl)phenyl]methanesulfonamides and analogs as **.beta.3 adrenoceptor** agonists

IN Washburn, William N.; Girotra, Ravindar N.; Sher, Philip M.; Mikkilineni, Amarendra B.; Poss, Kathleen M.; Mathur, Arvind; Bisacchi, Gregory S.; Gavai, Ashvinikumar V.

PA Bristol-Myers Squibb Co., USA

SO U.S., 79 pp., Cont.-in-part of U. S. Ser. No. 171,285, abandoned.  
CODEN: USXXAM

DT Patent

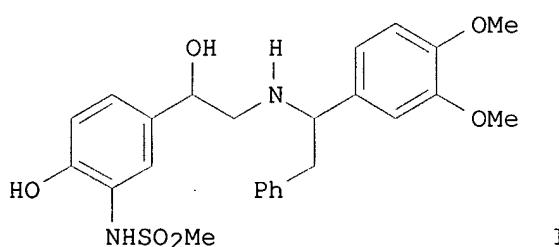
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5776983	A	19980707	US 1994-346543	19941202 <--
	TW 424082	B	20010301	TW 1994-83111890	19941219 <--
	HU 72302	A2	19960429	HU 1994-3694	19941220 <--
	HU 220063	B	20011028		
	CA 2138675	AA	19950622	CA 1994-2138675	19941221 <--
	FI 9406003	A	19950622	FI 1994-6003	19941221 <--
	NO 9404969	A	19950622	NO 1994-4969	19941221 <--
	AU 9481635	A1	19950629	AU 1994-81635	19941221 <--
	AU 688417	B2	19980312		
	JP 07206806	A2	19950808	JP 1994-336251	19941221 <--
	CN 1109050	A	19950927	CN 1994-113297	19941221 <--
	ZA 9410213	A	19960621	ZA 1994-10213	19941221 <--
PRAI	US 1993-171285	B2	19931221	<--	

OS MARPAT 129:108907

GI



AB R1SO2NHZ1CH(OH)CHR6NHCR3R4Z2R2 [R1 = alkyl or aryl(alkyl); R2 = (un)substituted Ph; R3 = H, alkyl, heterocyclyl, etc.; R4 = H, alkyl, etc.; R6 = H or alkyl; Z1 = (un)substituted 1,3-phenylene; Z2 = bond, (acyl)methylene, (CH2)2-3] were prep'd. as **.beta.3 adrenoceptor** agonists (no data). Thus, 3,4-(MeO)2C6H3CH(NH2)CH2Ph was N-alkylated by 4,3-(PhCH2O)(MeSO2NH)C6H3COCH2Br (prepn. each given) to give, after hydrogenation, title compd. I.

IT 170685-57-1P 170685-58-2P 170685-59-3P  
 170685-60-6P 170685-61-7P 170685-62-8P  
 170685-63-9P 170685-64-0P 170685-65-1P  
 170685-66-2P 170685-67-3P 170685-68-4P  
 170685-69-5P 170685-75-3P 170685-78-6P  
 170685-80-0P 170685-82-2P 170685-83-3P  
 170685-84-4P 170685-85-5P 170685-86-6P  
 170685-87-7P 170685-88-8P 170685-89-9P  
 170685-93-5P 170685-97-9P 170685-98-0P  
 170686-01-8P 170686-02-9P 170686-03-0P  
 170686-04-1P 170686-05-2P 170686-06-3P  
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 170686-35-8P 170686-36-9P 170686-37-0P  
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170686-47-2P 170686-58-5P 170686-59-6P  
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 170686-64-3P 170686-65-4P 170686-66-5P  
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 170686-70-1P 170686-72-3P 170686-73-4P  
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 170687-10-2P 170687-11-3P 170687-12-4P  
 170687-13-5P 170687-14-6P 170687-15-7P  
 170687-16-8P 170687-18-0P 170687-19-1P  
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 170687-33-9P 170687-35-1P 170687-43-1P  
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 170687-47-5P 170687-48-6P 170687-49-7P  
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 170687-56-6P 170687-58-8P 170687-59-9P  
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 170687-63-5P 170687-64-6P 170687-65-7P  
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 209914-83-0P 209914-84-1P 209914-86-3P  
 209914-87-4P 209914-89-6P 209914-91-0P  
 209914-92-1P 209914-94-3P 209914-95-4P  
 209914-97-6P 209914-98-7P 209915-09-3P  
 209915-16-2P 209915-17-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of N-[3-(2-*aralkylamino*-1-hydroxyethyl)phenyl]methanesulfonamides and analogs as *.beta.3 adrenoceptor* agonists)

## RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Ainsworth	1982			US 4338333	HCAPLUS
Anon	1965			GB 1005025	
Anon	1971			DE 2048555	HCAPLUS
Anon	1974			GB 1367678	HCAPLUS
Anon	1974			DE 2310142	HCAPLUS
Anon	1974			JP 51125291	HCAPLUS
Anon	1975			DE 122967	
Anon	1975			JP 51143678	HCAPLUS
Anon	1975			JP 51149282	HCAPLUS
Anon	1976			DE 0122967	
Anon	1976			JP 53002443	HCAPLUS
Anon	1981			EP 0023385	HCAPLUS
Anon	1983			ZA 837012	
Anon	1983			AU A1924183	
Anon	1986			CA 1204445	HCAPLUS
Anon	1993			EP 556880	HCAPLUS
Bloom	1991			US 5061727	HCAPLUS
Buu-Hoi	1976			US 3954871	HCAPLUS
Cecchi	1987			US 4707497	HCAPLUS
Ebnother	1974			US 3804899	HCAPLUS
Francis	1975			US 3906110	HCAPLUS

Gould	1971		US 3574741	
Holloway	1988		US 4772631	HCAPLUS
Jack	1972		US 3689524	HCAPLUS
Jack	1974		US 3803230	HCAPLUS
Lambelin	1987		US 4638070	HCAPLUS
Larsen	1967		US 3341584	
Larsen	1972		US 3660487	HCAPLUS
Larsen	1967	10 462	J Med Chem	HCAPLUS
Lunts	1972		US 3705233	HCAPLUS
Lunts	1973		US 3732300	
Lunts	1977		US 4012444	HCAPLUS
Lunts	1978		US 4066755	
Sugihara	1977		US 4035512	

L130 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:356059 HCAPLUS

DN 129:90214

TI Differential regulation of uncoupling proteins by chronic treatments with .beta.3-adrenergic agonist BRL 35135 and metformin in obese fa/fa Zucker rat

AU Savontaus, Eriika; Rouru, Juha; Boss, Olivier; Huupponen, Risto; Koulu, Markku

CS Department of Pharmacology, University of Turku, Turku, Finland

SO Biochemical and Biophysical Research Communications (1998), 246(3), 899-904

CODEN: BBRCA9; ISSN: 0006-291X

PB Academic Press

DT Journal

LA English

AB The expressions of uncoupling proteins 2 and 3 (UCP2; UCP3) mRNA were studied in obese (fa/fa) Zucker rats treated with two wt. gain reducing agents for three weeks. The specific .beta.3-adrenoceptor agonist BRL 35135 (0.5 mg/kg/day orally) increased the expression of UCP3 mRNA by 3.8-fold (P &lt; 0.0001; two-way ANOVA) and that of UCP1 mRNA by 2.6-fold (P = 0.014) in brown adipose tissue, but had no effect on expression of UCP3 mRNA in white fat or in the soleus muscle, or on UCP2 mRNA expression in brown or white fat. The antihyperglycemic metformin (300 mg/kg/day orally) had no effect on expressions of UCP1, UCP2 or UCP3 in any tissue studied. Concns. of plasma insulin were significantly correlated with the levels of white fat UCP2 mRNA (in the control group: r = 0.89, P = 0.0015) and UCP3 mRNA (in the control group: r = 0.80, P = 0.009) suggesting that insulin may play a role in the control of UCP2 and UCP3 mRNA expressions in white adipose tissue.

IT 86615-96-5, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (.beta.3-adrenergic agonist BRL 35135 and metformin effects on uncoupling proteins 2 and 3)

L130 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:752946 HCAPLUS

DN 128:34758

TI Preparation of 1, 3-benzodioxole-2,2,-dicarboxylates as .beta.3-adrenoceptor agonists

IN Gilbert, Adam Matthew; Grosu, George Theodore; Malamas, Michael Sotirios; Sum, Fuk Wah; Venkatesan, Aranapakam Mudumbai; Francisco, Gerardo De La Cruz

PA American Home Products Corporation, USA

SO PCT Int. Appl., 105 pp.

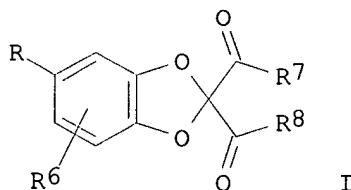
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9743273	A1	19971120	WO 1997-US8148	19970505 <--
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2254120	AA	19971120	CA 1997-2254120	19970505 <--
	AU 9730067	A1	19971205	AU 1997-30067	19970505 <--
	AU 730659	B2	20010308		
	EP 901484	A1	19990317	EP 1997-924720	19970505 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
	BR 9708948	A	19990803	BR 1997-8948	19970509 <--
	JP 2000510150	T2	20000808	JP 1997-541097	19970509 <--
	KR 2000011001	A	20000225	KR 1998-709151	19981113 <--
PRAI	US 1996-645970	A	19960514 <--		
	WO 1997-US8148	W	19970505 <--		
OS	MARPAT	128:34758			
GI					



AB Title compds. [I; R = R<sub>1</sub>CH(OR<sub>2</sub>)CH<sub>2</sub>NR<sub>3</sub>CR<sub>4</sub>R<sub>5</sub>CH<sub>2</sub>; R<sub>1</sub> = (un)substituted Ph; R<sub>2</sub> = H or trialkylsilyl; R<sub>3</sub> = H or alkoxy carbonyl; R<sub>2</sub>R<sub>3</sub> = CH<sub>2</sub>, alkylidene, arylmethylene; R<sub>4</sub>, R<sub>5</sub> = H or allyl; R<sub>6</sub> = H, halo, alkyl, alkoxy, etc.; R<sub>7</sub>, R<sub>8</sub> = OR<sub>9</sub>, NR<sub>10</sub>R<sub>11</sub>; R<sub>9</sub> = H, alkyl, aryl(alkyl), etc.; R<sub>10</sub>, R<sub>11</sub> = H, alkyl, aryl(alkyl), etc.] were prepd. Thus, I [R = 3-C<sub>1</sub>C<sub>6</sub>H<sub>4</sub>CH(OH)CH<sub>2</sub>NHCHMeCH<sub>2</sub>, R<sub>6</sub> = H] (II; R<sub>7</sub> = R<sub>8</sub> = OH) was esterified by MeOCH<sub>2</sub>CH<sub>2</sub>OH to give II (R<sub>7</sub> = R<sub>8</sub> = OCH<sub>2</sub>CH<sub>2</sub>OMe). Data for biol. activity of I were given.

IT 199669-72-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of 1, 3-benzodioxole-2,2-dicarboxylates as **beta**-3-adrenoceptor agonists)

L130 ANSWER 8 OF 24 HCPLUS COPYRIGHT 2002 ACS

AN 1997:482928 HCPLUS

DN 127:199880

TI Chronic treatment with BRL 35135 potentiates the action of insulin on lipid metabolism

AU Virtanen, Kirsi A.; Rouru, Juha; Haenninen, Virve; Savontaus, Eriika; Rouvari, Taina; Teirmaa, Tomi; Koulu, Markku; Huupponen, Risto

CS Department of Pharmacology and Clinical Pharmacology, University of Turku, Kiinanmyllynkatu 10, Turku, FIN-20520, Finland

SO European Journal of Pharmacology (1997), 332(2), 215-218

CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier

DT Journal

LA English

AB The effects of a **.beta.3-adrenoceptor**

agonist on insulin-induced changes in lipid metab. were studied in obese male Zucker (fa/fa) rats during euglycemic clamp. Rats were treated with BRL 35135 (R,R-(+--)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)-ethyl-amino]-propyl]-phenoxyacetate hydrobromide) (0.5 mg/kg per day in drinking water) for three weeks before an euglycemic hyperinsulinemic clamp was performed. Insulin infusion lowered serum non-esterified fatty acids and plasma glycerol more efficiently in BRL 35135-treated than in control rats although plasma insulin remained significantly lower in the BRL 35135-treated than in the control rats during the clamp. In conclusion, chronic treatment with BRL 35135 potentiates the effect of insulin on lipid metab.

IT 86615-96-5, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chronic treatment with **.beta.3-adrenoceptor** agonist BRL 35135 potentiates insulin action on lipid metab.)

L130 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:725349 HCAPLUS

DN 126:26853

TI Treatment of **glaucoma** and ocular hypertension with **.beta.3-adrenergic agonists**

IN Brazzell, Romulus K.; Dubnick, Bernard

PA American Cyanamid Company, USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5578638	A	19961126	US 1993-148154	19931105 <--
	ZA 9408742	A	19950710	ZA 1994-8742	19941104 <--

PRAI US 1993-148154 19931105 &lt;--

AB This invention relates to a method of treating glaucoma or reducing intraocular pressure in a patient in need of such treatment which is based on the topical administration to the eye of a mammal or the systemic administration of **.beta.2-adrenergic agonists** such as di-Na (R,R)-7-[2-(3-chlorophenyl)-2-hydroxyethyl]amino]-7,8-dihydro-6H-indeno[4,3-d]-1,3-dioxole-2,2-dicarboxylate.

IT 127299-93-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(glaucoma and ocular hypertension treatment with **.beta.3-adrenergic agonists**)

L130 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:688208 HCAPLUS

DN 126:26629

TI Rapid inhibition of ob gene expression and circulating leptin levels in lean mice by the **.beta.3-adrenoceptor** agonists BRL 35135A and ZD2079AU Trayhurn, Paul; Duncan, Jacqueline S.; Rayner, D. V.; Hardie, Laura J.  
CS Division Biochemical Sciences, Rowett Research Institute, Bucksburn, Aberdeen, AB21 9SB, UK

SO Biochemical and Biophysical Research Communications (1996), 228(2), 605-610

CODEN: BBRCA9; ISSN: 0006-291X

PB Academic  
 DT Journal  
 LA English  
 AB The acute effect of two selective **.beta.3-adrenoceptor** agonists, BRL 35135A and ZD2079, on the expression of the ob gene and plasma leptin levels has been examd. in mice. By 4-5 h after the administration of either **.beta.3-agonist** to lean animals there was a major loss of ob mRNA from epididymal white adipose tissue. This was accompanied by a substantial fall in circulating leptin levels, as measured by an ELISA. Even 24 h after the first administration of **.beta.3-agonists**, ob mRNA levels and circulating leptin levels remained low. In contrast to lean animals, treatment with BRL 35135A had only a minor effect on ob mRNA levels in obese (ob/ob) mice. Regulation of leptin prodn. appears to involve a neg. feedback loop to white adipose tissue through the sympathetic nervous system suppressing ob gene transcription via **.beta.3-adrenoceptors**; an impairment in this loop is evident in the ob/ob mutant.

IT 86615-41-0, BRL 35135A 178600-17-4, ZD2079  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (.beta.3-adrenoceptor agonists BRL 35135A  
 and ZD2079 inhibition of ob gene expression and leptin level in lean vs. obese mice)

L130 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1996:671324 HCAPLUS  
 DN 125:317095  
 TI Improvement of metabolic disorders and visceral fat obesity by the **.beta.3-adrenoceptor** agonist  
 (R\*,R\*)-(+)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetate hydrobromide (BRL35135A) in genetically obese rodents  
 AU Hashimoto, Koji; Nagao, Yuji; Iida, Keiichi; Takeda, Mitsuhiro; Murakami, Nobuya; Kato, Katsuaki; Mizota, Masahiro  
 CS Department of Pharmacology, Mochida Pharmaceutical Co., Ltd., Tokyo, 115, Japan  
 SO Biochemical Pharmacology (1996), 52(10), 1529-1535  
 CODEN: BCPCA6; ISSN: 0006-2952  
 PB Elsevier  
 DT Journal  
 LA English  
 AB The effects of BRL35135A ((R\*,R\*)-(+)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetate hydrobromide), a **.beta.3-adrenoceptor** agonist, on visceral and s.c. fat wt. and metabolic disorders were studied in genetically obese C57BL/KsJ db/db mice and Zucker fa/fa rats. In db/db mice, four weeks of oral administration of BRL35135A (0.5 and 5 mg/kg/day) decreased body wt. gain and reduced white fat wt. The rates of redn. of white fat wt. were in the order mesenteric fat > retroperitoneal fat > s.c. fat. In fa/fa rats, daily administration of BRL35135A (0.05 mg/kg/day) for 6 wk reduced the visceral white fat wt./total energy intake ratio, particularly for mesenteric fat, without any clear effect on body wt. gain. This tendency of the compd. to exert effects on visceral fat was consistent with the findings that the effect of BRL37344 ((R\*,R\*)-(+)-methyl-4-[2[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetic acid), an active metabolite of BRL35135A, on the lipolytic activity of isolated adipocytes and the tissue concn. of [14C]BRL37344 in male Wistar rats were each greater in visceral fat than in s.c. fat. Moreover, BRL35135A at 0.05 mg/kg/day elevated serum insulin levels and improved hyperglycemia in db/db mice without reducing body wt. gain, whereas at doses of 0.5 and 5 mg/kg/day it ameliorated hyperglycemia and hyperlipidemia, and tended to

decrease serum insulin levels. In fa/fa rats, BRL35135A (0.005 mg/kg/day) was also effective in improving hyperinsulinemia, glucose intolerance, and hypertriglyceridemia without any effect on body wt. gain or fat distribution. These findings suggest that the improvement of metabolic disorders by BRL35135A may be due to improvement in insulin resistance as well as redn. of visceral fat wt.

IT 86615-41-0, BRL35135A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(improvement of metabolic disorders and visceral fat obesity by **.beta.3-adrenoceptor** agonist BRL35135A in genetically obese rodents)

L130 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:628808 HCAPLUS

DN 125:316209

TI BMS-187257, a potent, selective, and novel heterocyclic **.beta.3 adrenergic receptor** agonist

AU Fisher, Liesl G.; Sher, Philip M.; Skwish, Stephen; Michel, Inge M.; Seiler, Steven M.; Dickinson, Kenneth E. J.

CS Bristol-Myers Squibb Pharmaceutical Institute, Princeton, NJ, 08543-4000, USA

SO Bioorganic & Medicinal Chemistry Letters (1996), 6(19), 2253-2258

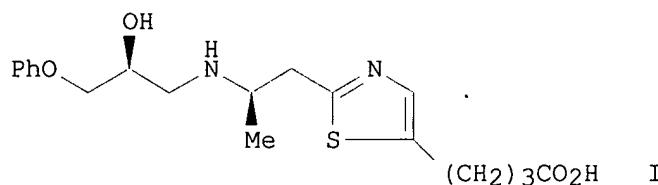
CODEN: BMCL8; ISSN: 0960-894X

PB Elsevier

DT Journal

LA English

GI



AB Novel heterocyclic **.beta.3 adrenergic receptor** agonists were prep'd. and evaluated for their ability to bind to human **.beta.1**, **.beta.2**, and **.beta.3 adrenergic receptors**. Stimulatory effects on the **.beta.3 adrenergic receptor** were also measured. The 2,5-disubstituted thiazole BMS-187257 (I) was found to be a potent and selective **.beta.3** agonist.

IT 90730-96-4P, BRL37344

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of arylalkanolamine thiazoles as selective **.beta.3 adrenergic receptor** agonist)

L130 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:616601 HCAPLUS

DN 125:275666

TI Preparation of pyridyl-substituted sulfonamides as selective **.beta.**

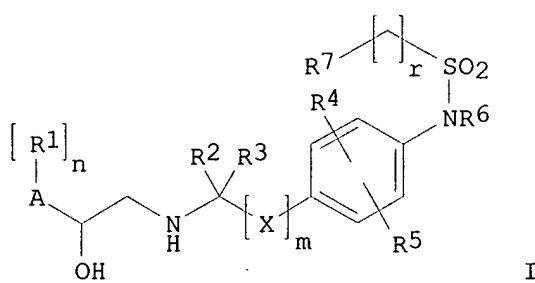
.3 adrenergic receptor agonists for the treatment of type II diabetes and obesity

IN Fisher, Michael H.; Naylor, Elizabeth M.; Ok, Dong; Weber, Ann E.; Shih, Thomas; Ok, Hyun  
 PA Merck and Co., Inc., USA  
 SO U.S., 35 pp., Cont.-in-part of U. S. Ser. No. 404,565, abandoned.  
 CODEN: USXXAM

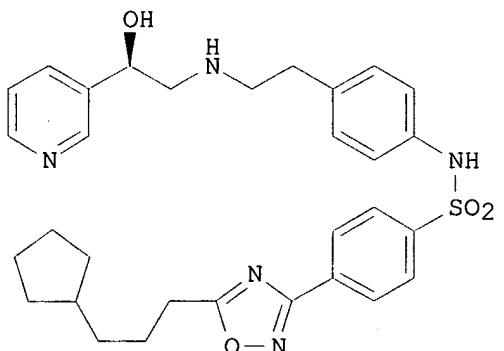
DT Patent  
 LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5561142	A	19961001	US 1995-445630	19950522 <--
	US 5705515	A	19980106	US 1996-684901	19960725 <--
PRAI	US 1994-233166	B2	19940426 <--		
	US 1995-404565	B2	19950321 <--		
	US 1995-445630	A2	19950522 <--		
OS	MARPAT 125:275666				
GI					



I



II

AB The title compds. [I; A = pyridinyl; R1 = OH, O, halo, etc.; R2, R3 = H, C1-10 alkyl, C1-10 alkoxy, etc.; X = CH2, (CH2)2, CH:CH, CH2O; R4, R5 = H, C1-10 alkyl, halo, etc.; R6 = H, C1-10 alkyl; R7 = (substituted) Ph, naphthyl, a 5- or 6-membered heterocyclic ring, etc.; n = 0-5; m = 0-1; r = 0-3], selective **.beta.3 adrenergic receptor** agonists and therefore useful in the treatment of type II diabetes and obesity as well as neurogenic inflammation, depression, gastrointestinal disorders, gut motility and as lowering triglyceride and cholesterol levels agents, were prep'd. by coupling an aminoalkylphenylsulfonamide with an appropriately substituted epoxide. Thus, refluxing (R)-(pyrid-3-yl)oxirane with N-[4-(2-aminoethyl)phenyl]-4-[5-(3-cyclopentylpropyl)[1,2,4]-oxadiazol-3-yl]benzenesulfonamide in dry MeOH afforded the desired product (R)-II. Compds. I were effective at 0.07-350 mg/day when treating diabetes mellitus and/or hyperglycemia.

IT 173902-22-2P 173902-24-4P 173902-26-6P  
 173902-30-2P 173902-31-3P 173902-32-4P  
 173902-33-5P 173902-34-6P 173902-35-7P  
 173902-36-8P 173902-37-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridyl-substituted sulfonamides as selective .beta. 3 adrenergic receptor agonists for the treatment of type II diabetes and obesity)

L130 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1996:494735 HCAPLUS

DN 125:221588

TI Substituted sulfonamides as selective .beta.3 agonists for the treatment of diabetes and obesity

IN Fisher, Michael H.; Naylor, Elizabeth M.; Weber, Ann E.

PA Merck and Co., Inc., USA

SO U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 233,166, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5541197	A	19960730	US 1995-404566	19950321 <--
	IL 113410	A1	19991130	IL 1995-113410	19950418 <--
	CA 2187932	AA	19951102	CA 1995-2187932	19950421 <--
	WO 9529159	A1	19951102	WO 1995-US4956	19950421 <--
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, US, US, US, UZ				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9523937	A1	19951116	AU 1995-23937	19950421 <--
	AU 687558	B2	19980226		
	EP 757674	A1	19970212	EP 1995-917116	19950421 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	CN 1149869	A	19970514	CN 1995-192821	19950421 <--
	HU 76442	A2	19970929	HU 1996-2951	19950421 <--
	JP 09512275	T2	19971209	JP 1995-527797	19950421 <--
	JP 3149186	B2	20010326		
	ZA 9503336	A	19960109	ZA 1995-3336	19950425 <--
	FI 9604314	A	19961025	FI 1996-4314	19961025 <--
	NO 9604548	A	19961223	NO 1996-4548	19961025 <--
PRAI	US 1994-233166	B2	19940426	<--	
	US 1995-404565	A	19950321	<--	
	US 1995-404566	A	19950321	<--	
	WO 1995-US4956	W	19950421	<--	
OS	MARPAT	125:221588			
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Substituted sulfonamides I wherein: n is 0-5; m is 0 or 1; p is 0-3; ring A is (1) a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (2) a benzene ring fused to a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (3) a 5 or 6-membered heterocyclic ring with

from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen fused to a 5 or 6-membered heterocyclic ring with from 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen, (4) Ph, or (5) a benzene ring fused to a C3-8 cycloalkyl ring; R1 is, e.g., OH, oxo, halo; R2 and R3 are independently (1) hydrogen, (2) C1-C10 alkyl or (3) C1-C10 alkyl with 1 to 4 substituents selected from hydroxy, C1-C10 alkoxy, and halogen; X is (1) CH<sub>2</sub>, (2) CH<sub>2</sub>CH<sub>2</sub>, (3) CH:CH, or (4) CH<sub>2</sub>O; R4 and R5 are independently, e.g., hydrogen, C1-C10 alkyl, halogen; R6 is (1) hydrogen or (2) C1-C10 alkyl; R7 is Z-(R1a)<sub>n</sub>; R1a is, e.g., R1 (with proviso), C3-8 cycloalkyl, optionally substituted Ph; Z is, e.g., Ph, naphthyl, heterocyclic, are selective **.beta.3 adrenergic**

**receptor** agonists with very little **.beta.1** and **.beta.2 adrenergic receptor** activity and as such the compds. are capable of increasing lipolysis and energy expenditure in cells (no data). The compds. thus have potent activity in the treatment of Type II diabetes and obesity. The compds. can also be used to lower triglyceride levels and cholesterol levels or raise high d. lipoprotein levels or to decrease gut motility. In addn., the compds. can be used to reduced neurogenic inflammation or as antidepressant agents. Compns. and methods for the use of the compds. in the treatment of diabetes and obesity and for lowering triglyceride levels and cholesterol levels or raising high d. lipoprotein levels or for increasing gut motility are also disclosed. Thus, e.g., ring cleavage of (R)-2-(tetrazolo[1,5-a]pyrid-6-yl)oxirane with 2-(4-aminophenyl)ethylamine followed by Boc protection afforded amino alc. II; chlorosulfonylation of N-hexyl-N'-phenylurea (from hexylamine + Ph isocyanate) provided N-hexyl-N'-(4-chlorosulfonylphenyl)urea III; coupling of II + III followed by deprotection afforded sulfonamide IV.

IT 173900-55-5P 173900-57-7P 173900-58-8P  
 173900-59-9P 173900-60-2P 173900-61-3P  
 173900-62-4P 173902-22-2P 173902-24-4P  
 173902-26-6P 173902-30-2P 173902-31-3P  
 173902-32-4P 173902-33-5P 173902-34-6P  
 173902-35-7P 173902-36-8P 173902-37-9P  
 180973-82-4P 180973-83-5P 180973-84-6P  
 180973-85-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (substituted sulfonamides as selective **.beta.3** agonists for the treatment of diabetes and obesity)

L130 ANSWER 15 OF 24 HCPLUS COPYRIGHT 2002 ACS

AN 1996:343723 HCPLUS

DN 125:75996

TI Effects of several putative **.beta.3-**

**adrenoceptor** agonists on lipolysis in human omental adipocytes

AU Hoffstedt, J.; Loennqvist, F.; Shimizu, M.; Blaak, E.; Arner, P.

CS Department of Medicine, Huddinge University Hospital, Huddinge, S-14186, Swed.

SO International Journal of Obesity (1996), 20(5), 428-434

CODEN: IJOBDP; ISSN: 0307-0565

PB Stockton

DT Journal

LA English

AB Atypical **.beta.3-adrenoceptor** agonists have attained an increasing interest as potential drugs against obesity and diabetes. However, their pharmacol. actions on the native, human **.beta.3-adrenoceptor** are not well defined. In the present study, the lipolytic effects of several putative **.beta.3-adrenoceptor** agonists were investigated in human omental adipocytes. CL 316 243 and CGP 12177 had selective partial **.beta.3-agonist** effects (pD<sub>2</sub> about 4 and 8, resp.); the latter drug is a **.beta.1-/.beta.2-adrenoceptor** blocker in addn.

to its **.beta.3-adrenoceptor** agonist activity. BRL 37344 and SM 11044 were also partial agonists, but with significant **.beta.1** - and/or **.beta.2-adrenoceptor** agonist properties. Bucindolol, ZD 2079, ICI D7114 and SR 58611A were ineffective as lipolytic drugs. In addn., ICI D7114 was a non-selective **.beta.1-/beta.2-/beta.3-adrenoceptor**

antagonist in human adipocytes. None of the **.beta.3-adrenoceptor** agonists tested is an ideal drug for therapeutic use in man (i.e. regarded as a selective and full agonist with high receptor potency). Only CL 316 243 may have a potential therapeutic role, although the potency is very low. CGP 12177 is useful as a ref. substance for human in vitro studies.

IT 90730-96-4, BRL 37344 178600-17-4, ZD 2079

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(putative **.beta.3-adrenoceptor** agonists effect on lipolysis in human omental adipocytes in relation to obesity treatment)

L130 ANSWER 16 OF 24 HCPLUS COPYRIGHT 2002 ACS

AN 1996:271822 HCPLUS

DN 125:1405

TI Use of 2-hydroxy-2-phenylethylaminoethoxyphenylacetate as **.beta.3-adrenoceptor** agonists

IN Holloway, Brian R.; Howe, Ralph; Rao, Balbir S.

PA Zeneca Ltd., UK

SO U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 889,186, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5502078	A	19960326	US 1993-57763	19930507 <--
PRAI	GB 1991-11425	A	19910528	<--	
	US 1992-889186	B2	19920528	<--	
OS	CASREACT 125:1405; MARPAT 125:1405				
AB	3,5-Substituted-C6H3-CH(OH)CH2NHCH2CH2O-p-C6H4-CH2CO2H and bioprecursors and pharmaceutically acceptable salts thereof are described as <b>.beta.3-adrenoceptor</b> agonists having anti-obesity, hypoglycemic and related therapeutic utilities. (R)-4-[2-(3-chlorophenyl)-2-hydroxyethylamino]ethoxyphenylacetic acid and its HCl salt are claimed.				
IT	146520-46-9P 146520-47-0P 146520-48-1P 146520-50-5P 146520-51-6P 146520-52-7P 146520-53-8P 146520-54-9P 177288-18-5P				
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (2-hydroxy-2-phenylethylaminoethoxyphenylacetates as <b>.beta.3-adrenoceptor</b> agonists)				

L130 ANSWER 17 OF 24 HCPLUS COPYRIGHT 2002 ACS

AN 1996:203512 HCPLUS

DN 124:278730

TI Biphasic effects of the **.beta.-adrenoceptor** agonist, BRL 37344, on glucose utilization in rat isolated skeletal muscle

AU Liu, Yong-Ling; Cawthorne, Michael A.; Stock, Michael J.

CS Dep. Physiol., St. George's Hosp. Med. Sch., London, SW17 0RE, UK

SO British Journal of Pharmacology (1996), 117(6), 1355-61

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal  
 LA English  
 AB The effects of the selective **.beta.3-**  
**adrenoceptor** agonist, BRL 37344 (BRL) on glucose uptake and phosphorylation (i.e. glucose utilization; GU) and glycogen synthesis in rat isolated soleus and extensor digitorum longus (EDL) muscle preps. in vitro were investigated by use of 2-deoxy-[3H]-glucose (GU) and [U-14C]-glucose (glycogen synthesis). Low concns. of BRL (10-11-10-9 M) significantly increased GU, with maximal increases of 30% in soleus and 24% in EDL at 10-11 M. Neither the selective **.beta.1-adrenoceptor** antagonist, atenolol (10-8-10-6 M), nor the selective **.beta.2-adrenoceptor** antagonist, ICI 118551 (10-8-10-6 M) had any effect on the stimulation of GU induced by 10-11 M BRL. High concns. of BRL (10-6-10-5 M) caused significant inhibition (up to 30%) of GU in both soleus and EDL muscles. The inhibition at 10-6 M BRL was blocked completely by 10-6 and 10-7 M ICI 118551 in soleus, and by 10-6-10-8 M ICI 118551 in EDL; atenolol (10-8-10-6 M) had no effect. Another selective **.beta.3-adrenoceptor** agonist, CL 316,243, also caused a significant stimulation of muscle GU, with maximal increases of 43% at 10-9 M in soleus and 45% at 10-10 M in EDL. The stimulation of GU declined with further increases in the concn. of CL 316,243, but no inhibition of GU was seen, even at the highest concn. (10-5 M) tested. BRL at 10-5 M inhibited completely insulin-stimulated glycogen synthesis in both soleus and EDL, but this inhibitory effect of BRL was abolished by 10-6 M ICI 118551. BRL at 10-11 M (with or without 10-6 M ICI 118551) had no effect on insulin-stimulated glycogen synthesis. It is concluded that: (i) low (<nM) concns. of BRL stimulate GU via an atypical **.beta.-adrenoceptor** that is resistant to conventional **.beta.1-adrenoceptor** and **.beta.2-adrenoceptor** antagonists; (ii) the stimulation of GU is negated by the activation of **.beta.2-adrenoceptors** that occurs at higher (>nM) concns. of BRL; (iii) inhibition of GU via **.beta.2-adrenoceptor** activation is assocd. with inhibition of glycogen synthesis, possibly due to activation of glycogenolysis; (i.v.) the opposing effects of **.beta.2-adrenoceptor** and atypical **.beta.-adrenoceptor** activation on GU suggest that in skeletal muscle these **adrenoceptors** are linked to different post-receptor pathways.

IT 90730-96-4, BRL37344  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (biphasic effects of the **.beta.-adrenoceptor** agonist, BRL 37344, on glucose utilization in rat isolated skeletal muscle)

L130 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1996:94552 HCAPLUS  
 DN 124:194133  
 TI Comparison of the profiles of agonists as stimulants of the **.beta.3-adrenoceptor** in vitro with their gastroprotective effects in the conscious rat  
 AU Bahl, A. K.; Clayton, N. M.; Coates, J.; Martin, D. P.; Oakley, I. G.; Strong, P.; Trevethick, M. A.  
 CS Glaxo Wellcome Research & Development Ltd., Glaxo Wellcome Medicines Centre, Stevenage, Herts, SG1 2NY, UK  
 SO British Journal of Pharmacology (1996), 117(3), 580-6  
 CODEN: BJPCBM; ISSN: 0007-1188  
 PB Stockton  
 DT Journal  
 LA English  
 AB This paper compares the activity of a range of agonists as stimulants of the **.beta.3-adrenoceptor** in rat isolated esophagus with their ability to afford protection against indomethacin-induced gastric damage in the conscious rat. The .

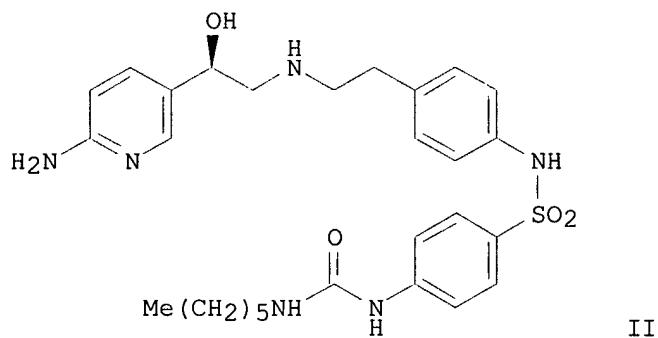
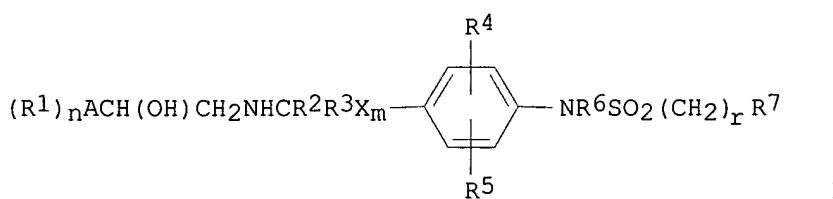
**beta.3-adrenoceptor agonists**, CL 316243 and BRL 37344, the non-selective **.beta.-adrenoceptor** agonist, isoprenaline and the selective **.beta.2-adrenoceptor** agonist, salmeterol, all evoked concn.-dependent relaxation of precontracted muscularis mucosa from rat esophagus. The rank order of agonist potency was BRL 37344 > CL 316243 > isoprenaline .mchgt. salmeterol. The selective **.beta.1-adrenoceptor** agonist, denopamine, did not relax the prep. The relaxant responses to all agonists were resistant to blockade by atenolol (10 .mu.M), and ICI 118551 (1 .mu.M) thus suggesting that they were not mediated by either **.beta.1-** or **.beta.2-adrenoceptor** stimulation. In contrast, cyanopindolol and propranolol did inhibit responses to BRL 37344, CL 316243 and isoprenaline, giving pA2 values or pKB ests. which were consistent with an interaction of **.beta.3-adrenoceptors** (i.e. approx. 8.0 and 6.5 resp.). However, responses to salmeterol were resistant to blockade by all the antagonists tested, which suggests that the high (>1 .mu.M) concns. of salmeterol used exerted non-specific relaxant effects. The agonist effects of CL 316243 and BRL 37344 on **.beta.1-** and **.beta.2-adrenoceptors** were assessed on guinea-pig right atrium and precontracted trachea resp. Both agonists had minimal activity as stimulants of heart rate, but did relax trachea, being 380 (CL 316243) and 21 (BRL 37344) fold less potent than isoprenaline. CL 316243 and BRL 37344 were potent inhibitors of indomethacin-induced gastric antral ulceration in the conscious rat (ED50 values = 0.24 and 0.09 .mu.mol kg-1 p.o.) ABA: Salmeterol was approx. 100 times less potent than BRL 37344 as a gastroprotective agent and denopamine was without effect. The gastroprotective effects of CL 316243 and BRL 37344 were resistant to blockade by ICI 118551 (10 mg kg-1, p.o.) and propranolol (10 mg kg-1 p.o.). In contrast, both antagonists caused dose-related inhibition of the protective action of salmeterol (10 mg kg-1, p.o.). Cyanopindolol was not assessed as an antagonist in vivo because preliminary expts. revealed that it exacerbated indomethacin-induced gastric damage in its own right. In conclusion, the **.beta.3-adrenoceptor** agonists CL 316243 and BRL 37344 were potent inhibitors of indomethacin-induced gastric antral ulceration in the rat. These data suggest that an agonist which is potent and selective for the human **.beta.3-adrenoceptor** may confer mucosal protection in man.

IT 71771-90-9, Denopamine 90730-96-4, BRL 37344  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (comparison of profiles of agonists as stimulants of **.beta.3-adrenoceptor** in vitro with gastroprotective effects in conscious rat)

L130 ANSWER 19 OF 24 HCPLUS COPYRIGHT 2002 ACS  
 AN 1995:998182 HCPLUS  
 DN 124:176115  
 TI Preparation of substituted arylsulfonamides as selective **.beta.3** agonists for the treatment of diabetes and obesity.  
 IN Fisher, Michael H.; Naylor, Elisabeth M.; Ok, Dong; Weber, Ann E.; Shih, Thomas; Ok, Hyun  
 PA Merck and Co., Inc., USA  
 SO PCT Int. Appl., 102 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9529159	A1	19951102	WO 1995-US4956	19950421 <-- W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG,

KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG,  
 SI, SK, TJ, TT, UA, US, US, US, UZ  
 RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,  
 LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,  
 SN, TD, TG  
 US 5541197 A 19960730 US 1995-404566 19950321 <--  
 AU 9523937 A1 19951116 AU 1995-23937 19950421 <--  
 AU 687558 B2 19980226  
 EP 757674 A1 19970212 EP 1995-917116 19950421 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE  
 JP 09512275 T2 19971209 JP 1995-527797 19950421 <--  
 JP 3149186 B2 20010326  
 FI 9604314 A 19961025 FI 1996-4314 19961025 <--  
 NO 9604548 A 19961223 NO 1996-4548 19961025 <--  
 PRAI US 1994-233166 A 19940426 <--  
 US 1995-404565 A 19950321 <--  
 US 1995-404566 A 19950321 <--  
 WO 1995-US4956 W 19950421 <--  
 OS MARPAT 124:176115  
 GI



AB Title compds. [I;  $m = 0, 1$ ;  $n = 0-5$ ;  $r = 0-3$ ; A = heterocyclyl, benzoheterocyclyl, heterocycloheterocyclyl, Ph, benzocycloalkyl; R1 = OH, O, halo, cyano, amino, CF3, sulfonylamino, (substituted) alkyl, etc.; R2, R3 = H, (substituted) alkyl; R4, R5 = H, alkyl, halo, amino, sulfonylamino, OH, etc; R6 = H, alkyl; R7 = Z(R11)n; R11 = R1, provided that when A = Ph, R11 .noteq. alkyl; X = CH2, CH2CH2, CH:CH, CH2O; Z = Ph, naphthyl, heterocyclyl, heterocycloheterocyclyl] were prep'd. as selective **.beta.3 adrenergic receptor** agonists with very little **.beta.1** and **.beta.2 adrenergic receptor** activity which are capable of increasing lipolysis and energy expenditure in cells (no data). The compds. thus have potent activity in the treatment of Type II diabetes and obesity. The compds. can also be used to lower triglyceride levels and cholesterol levels or raise high d. lipoprotein levels or to decrease gut motility. In addn., the compds. can be used to reduce neurogenic inflammation or as antidepressant agents. Title compd. (II) was prep'd. in several steps.

IT 173900-52-2P 173900-53-3P 173900-54-4P  
 173900-55-5P 173900-56-6P 173900-57-7P  
 173900-58-8P 173900-59-9P 173900-60-2P  
 173900-61-3P 173900-62-4P 173902-22-2P  
 173902-24-4P 173902-26-6P 173902-30-2P  
 173902-31-3P 173902-32-4P 173902-33-5P  
 173902-34-6P 173902-35-7P 173902-36-8P  
 173902-37-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of substituted sulfonamides as selective .beta.3 agonists for the treatment of diabetes and obesity)

L130 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:614635 HCAPLUS

DN 123:74228

TI Predictive quantitative structure-activity relationships (QSAR) analysis of .beta.3-adrenergic ligands

AU Blin, Nathalie; Federici, Christian; Koschielniak, Thiery; Strosberg, Donny

CS Institut Cochin Genetique Moleculaire, Universite Paris VII, Paris, 75014, Fr.

SO Drug Design and Discovery (1995), 12(4), 297-311

CODEN: DDDIEV; ISSN: 1055-9612

PB Harwood

DT Journal

LA English

AB A novel quant. structure-activity relationships strategy was used to analyzed seventeen .beta.-adrenergic ligands for which we had previously evaluated pharmacol. properties in Chinese hamster ovary cells transfected with the human .beta.1-, .beta.2- or .beta.3-adrenergic gene (Blin et al., 1993, Mol. Pharmacol., 44: 1094-1104). These ligands were classified into pharmacol. activity categories in order to det. the extent to which mol. structural features may be involved in the selectivity of the interaction with the .beta.3-AR, or to define mol. features and properties characteristic of a .beta.3-AR high affinity ligand or of a potent .beta.3-adrenergic agonist. Topol. and physico-chem. mol. descriptors were obtained using a novel software combining calcns. with multivariate statistical methods, such as principal component anal. and discriminant anal. This study showed that .beta.1/.beta.2-antagonists .beta.3-agonists could be differentiate from .beta.1/.beta.2/.beta.3-agonists on the basis of their topol. mol. descriptors weighted by partial at. charge and lipophilicity logP values. Bulky lipophilic groups at the end of the alkylamine chain and an ethoxy function, extending the flexible portion of the mol. and modifying the electron d. distribution, were requirements for selective agonism at the .beta.3-site. Charge and logP weighted 2D-autocorrelation vectors were properties able to discriminate between classes of agonists to terms of their affinity, potency or intrinsic activity, thus emphasizing the part these mol. descriptors play in detg. .beta.3-adrenergic ligands. These results, in assocn. with the powerful activity-prediction model evaluated in the test, provide a framework to rationalize the synthesis of new .beta.3-AR specific compds.

IT 74248-92-3, LY 79771 90730-96-4, BRL 37344

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (QSAR anal. of .beta.3-adrenergic ligands)

L130 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:528146 HCAPLUS

DN 122:281934

TI Metabolic alterations associated with the antidiabetic effect of .

**beta.3-adrenergic receptor agonists**  
 in obese mice

AU Arbeeny, Cynthia M.; Meyers, Daniel S.; Hillyer, Donna E.; Bergquist, Kristin E.

CS Dep. Metabolic Diseases, Bristol-Myers Squibb Pharmaceutical Res. Inst., Princeton, NJ, 08543-4000, USA

SO American Journal of Physiology (1995), 268(4, Pt. 1), E678-E684  
 CODEN: AJPHAP; ISSN: 0002-9513

PB American Physiological Society

DT Journal

LA English

AB Treatment of obese (ob/ob) mice with the **.beta.3-adrenergic receptor** (**.beta.3-AR**)  
 agonist BRL-35135 (1 mg.cntdot.kg body wt-1.cntdot.day-1 for 20 days) normalized plasma glucose levels and significantly decreased plasma insulin and nonesterified fatty acid levels. The time frame for the hypoglycemic effect, which reached a max. after 10 days of treatment, paralleled an increase in brown adipose tissue DNA and protein content. The basal level of mRNA for the **.beta.3-AR** and mitochondrial uncoupling protein was found to be markedly decreased in the ob/ob animals relative to the lean group. Chronic treatment of ob/ob mice for 20 days resulted in a twofold increase in **.beta.3-AR** mRNA and a fivefold increase in uncoupling protein mRNA in brown adipose tissue relative to the placebo group. These findings indicate that chronic treatment of ob/ob animals with a **.beta.3-AR** agonist results in proliferation of brown adipose tissue, with an upregulation of the **.beta.3-AR**, which is assocd. with a decrease in plasma glucose, insulin, and nonesterified fatty acid levels.

IT 86615-96-5, BRL-35135  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (metabolic alterations assocd. with antidiabetic effect of **.beta.3-adrenergic agonist BRL-35135 in obese mice**)

L130 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:396436 HCAPLUS

DN 122:178252

TI Acute effects of the **.beta.3-adrenoceptor** agonist, BRL 35135, on tissue glucose utilization

AU Liu, Yong-Ling; Stock, Michael J.

CS Dep. Physiol., St. George's Hosp. Med. Sch., London, SW17 0RE, UK

SO British Journal of Pharmacology (1995), 114(4), 888-94  
 CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA English

AB The acute effects of BRL 35135 (BRL) on tissue glucose utilization index (GUI) in vivo were investigated in anesthetized rats by use of 2-deoxy-[<sup>3</sup>H]-glucose. I.v. injection of BRL caused a dose-dependent increase in GUI in skeletal muscle, and white and brown adipose tissue; plasma insulin and fatty acid concns. were also increased. Chronic treatment with BRL added to the diet caused a 34 fold increase in basal GUI of brown adipose tissue (BAT), but had no effect on GUI in other tissues. After chronic treatment, the acute tissue response to an i.v. maximal dose of BRL had disappeared completely in all tissues apart from the soleus muscle. A high dose (20 mg kg-1) of the non-selective **.beta.-antagonist**, propranolol, inhibited the acute effect of BRL on GUI in BAT, but failed to affect GUI in muscle. A lower dose (1 mg kg-1) of the antagonist also inhibited the BAT response, but had little or no effect on the response in Type I (working) muscles such as soleus and adductor longus (ADL), and potentiated the response in Type II

(non-working) muscles such as tibialis and extensor digitorium longus (EDL). A low dose (1 mg kg<sup>-1</sup>) of the selective  $\beta.1$ -antagonist, atenolol, had no effect on the BRL response but the same dose of the selective  $\beta.2$ -antagonist, ICI 118551, potentiated significantly the effect of BRL on GUI in most muscles without altering plasma insulin levels. It is concluded that: (i) the heterogeneous tissue responses of different muscle fiber types in the presence of  $\beta$ -antagonists indicates that BRL affects muscle GUI directly, in addn. to effects mediated by increases in plasma insulin concn.; (ii) the resistance of the BRL response to conventional  $\beta$ -adrenoceptor antagonists implicates an atypical adrenoceptor mediating the GUI response in skeletal muscle, but this may not be identical to the adipose tissue  $\beta.2$ -adrenoceptor, (iii) the potentiation of BRL responses by ICI 118551 indicates an inhibitory  $\beta.2$ -adrenoceptor-mediated component in the muscle GUI response to BRL.

IT 86615-96-5, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(acute effects of the  $\beta.3$ -adrenoceptor agonist BRL 35135 on tissue glucose utilization)

L130 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:252043 HCAPLUS

DN 122:23562

TI Potentiation of the antiobesity effect of the selective  $\beta.3$ -adrenoceptor agonist BRL 35135 in obese Zucker rats by exercise

AU Santti, Eriika; Huupponen, Risto; Rouru, Juha; Haenninen, Virve; Pesonen, Ullamari; Jhanwar-Uniyal, Meena; Koulu, Markku

CS Dept. Pharmacology, Univ. Turku, Turku, Finland

SO British Journal of Pharmacology (1994), 113(4), 1231-6  
CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA English

AB The effects of chronic treatments with a selective  $\beta.3$ -adrenoceptor agonist and a selective  $\alpha.2$ -adrenoceptor antagonist and their interactions with phys. exercise training were studied in exptl. obesity. BRL 35135 ( $\beta.3$ -agonist, 0.5 mg/kg/day, orally), atipamezole ( $\alpha.2$ -antagonist, 4.0 mg/kg/day, orally) and placebo were given to genetically obese male Zucker rats. Half of the rats were kept sedentary whereas the other half were subjected to moderate treadmill exercise training. Body wt. gain, cumulative food intake, the neuropeptide Y content of the hypothalamic paraventricular nucleus, brown adipose tissue thermogenic activity (measured as GDP binding), and plasma insulin and glucose levels were measured after 3-wk treatment and exercise. Treatment with BRL 35135 reduced wt. gain by 19%, increased brown adipose tissue thermogenic activity 45-fold and reduced plasma insulin by 50%. Atipamezole slightly increased food intake and neuropeptide Y content in the paraventricular hypothalamic nucleus but had no effect on the other parameters measured. Exercise alone had no effect on wt. gain, food intake or thermogenic activity, whereas it reduced plasma insulin and glucose levels. The effect of BRL 35135 on wt. gain and thermogenic activity was potentiated by exercise: the redn. in wt. gain was 56% in comparison with 19% in sedentary animals. Food intake was reduced in the BRL 35135-treated-exercise-trained animals, although neither the  $\beta.3$ -agonist nor exercise alone affected it. Based on these results in genetically obese Zucker rats, combination of  $\beta.3$ -agonist treatment with a moderate phys. training may offer a new feasible approach to the therapy of obesity.

IT 86615-96-5, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (.beta.3-adrenergic agonist BRL 35135 plus exercise treatment of obesity)

L130 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:645501 HCAPLUS

DN 121:245501

TI Enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in the rat

AU Kuratani, Kazuyoshi; Kodama, Hiroshi; Yamaguchi, Isamu

CS Tsukuba Res. Labs., Fujisawa Pharm. Co. Ltd., Tsukuba, 300-26, Japan

SO Journal of Pharmacology and Experimental Therapeutics (1994), 270(2), 559-65

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

AB Indomethacin (32 mg/kg s.c.) produced mainly antral ulcers in refed rats but almost exclusively corpus erosions in fasted rats. S.c. doses of a nonselective beta (isoproterenol), a selective .beta.-2 (salbutamol) and selective .beta.-3 adrenergic agonists BRL 35135, CL 316243, SR 58611A, dose-dependently attenuated the antral ulcers, and their activities were in the order of BRL 35135 (ED50 = 0.03 mg/kg) > CL 316243 (ED50 = 0.04 mg/kg) > SR 68511A (ED50 = 0.2 mg/kg) > isoproterenol (ED50 = 0.4 mg/kg) > salbutamol (ED50 = 6 mg/kg). Whereas only isoproterenol, salbutamol and BRL35135 significantly attenuated the corpus erosions and reduced gastric acid secretion in pylorus-ligated rats. In *in vitro*, all the beta agonists enhanced the beating rate of guinea pig atria (.beta.-1 action) and inhibited spontaneous contractions of rat uterus (.beta.-2 action) and colon (.beta.-3 action). There was found a statistically significant correlation between the IC50 values of the drugs on the colon and ED50 values on the indomethacin-induced antral ulcers ( $r = 0.97$ ). In addn., the beta agonists excepting salbutamol increased antral gastric mucosal blood flow in rats anesthetized with halothane, and the activities were arranged in the potency order of inhibiting colon motility. It is concluded that activation of **.beta.-3 adrenoceptor** attenuates the indomethacin-induced antral ulcers through an enhancement of antral gastric mucosal blood flow, whereas activation of beta-1 and/or **.beta.-2 adrenoceptors** attenuates indomethacin-induced corpus erosions through an inhibition of gastric secretion.

IT 86615-96-5, BRL 35135

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(enhancement of gastric mucosal blood flow by beta-3 adrenergic agonists prevents indomethacin-induced antral ulcer in rat)

=> d bib abs hitrn retable tot 1119

L119 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1986:224720 HCAPLUS

DN 104:224720

TI Tertiary 2-hydroxy-3-aryloxypropyl- and 2-hydroxy-2-benzofuranylethylamines having antihyperglycemic and/or antiobesity activity

IN Ainsworth, Anthony Trevor; Cawthorne, Michael Anthony

PA Beecham Group PLC, UK

SO Eur. Pat. Appl., 94 pp.

CODEN: EPXXDW

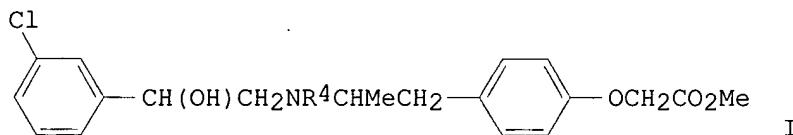
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 170121	A1	19860205	EP 1985-108609	19850710 <--
	EP 170121	B1	19910619		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 64590	E	19910715	AT 1985-108609	19850710 <--
	DK 8503253	A	19860120	DK 1985-3253	19850717 <--
	ZA 8505400	A	19860528	ZA 1985-5400	19850717 <--
	JP 61076446	A2	19860418	JP 1985-157137	19850718 <--
	ES 545365	A1	19861116	ES 1985-545365	19850718 <--
	AU 8545173	A1	19860123	AU 1985-45173	19850719 <--
	ES 552860	A1	19870501	ES 1986-552860	19860310 <--
PRAI	GB 1984-18472		19840719 <--		
	EP 1985-108609		19850710 <--		

GI



AB NR1R2R3 [R1 = (un)substituted 2-hydroxy-3-aryloxypropyl, 2-hydroxy-2-benzofuranylethyl; R2 = as given for R1, (un)substituted 2-hydroxy-2-arylethyl; R3 = substituted 2- or 3-arylpropyl, 2-aryloxyethyl; CHOH moieties may be present as carbonyls or esters] were prep'd. as antiobesity and/or antihyperglycemia agents in humans or animals, and as feed additives for livestock. Thus, aminopropylphenoxyacetate (.-.-(R\*,R\*)-I (R4 = H) was refluxed with phenoxymethyloxirane in EtOH for 4 days to give I [R4 = CH2CH(OH)CH2OPh] (II). Given orally to mice, II reduced parametrial fat pads by 39% at 55 mg/kg, increased energy expenditure by 58% at 27.5 mg/kg, and gave 50% redn. in 2-h integrated blood glucose curves at 0.5 .mu.mol/kg.

IT 102198-54-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, with phenoxymethyloxirane)

L119 ANSWER 2 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1985:523489 HCPLUS

DN 103:123489

TI Morpholine derivatives

IN Cantello, Barrie Christian Charles

PA Beecham Group PLC, UK

SO Eur. Pat. Appl., 36 pp.

CODEN: EPXXDW

DT Patent

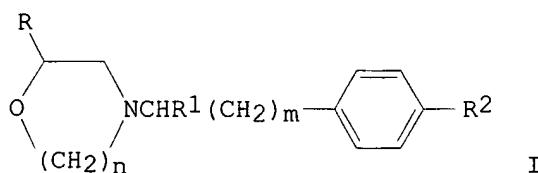
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 140359	A1	19850508	EP 1984-113014	19841029
	EP 140359	B1	19890125		
	R: CH, DE, FR, GB, IT, LI, NL				
	US 4607033	A	19860819	US 1984-666818	19841031
	JP 60112778	A2	19850619	JP 1984-231130	19841101
	JP 06004604	B4	19940119		
	US 4665072	A	19870512	US 1986-865348	19860521
	US 4783460	A	19881108	US 1987-26893	19870317

PRAI GB 1983-29247 19831102  
 GB 1984-4047 19840216  
 US 1984-666818 19841031  
 US 1986-865348 19860521

GI



AB Morpholines and perhydrooxazepines I [n = 2, 3; R = Ph, halophenyl, (trifluoromethyl)phenyl, 2-benzofuryl; R1 = H, Me; m = 1, 2; R2 = CO2H, esterified CO2H, carbamoyl, carboxyalkoxy, esterified carboxyalkoxy, carbamoylalkoxy, aminoalkoxy, hydroxyalkoxy, alkoxyalkoxy], which were prepd., exhibited antidiabetic activity. 2-Phenylmorpholine was stirred with 4-(MeCOCH2)C6H4OCH2CO2Me and NaB(CN)H3 in MeOH, and the mixt. was worked up to give I (n = 2, R = Ph, R1 = Me, m = 1, R2 = OCH2CO2Me).

IT 98235-69-9P 98235-70-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

L119 ANSWER 3 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1984:406799 HCPLUS

DN 101:6799

TI 2-Aminoethyl ether derivatives, and their pharmaceutical compositions

IN Cantello, Barrie Christian Charles

PA Beecham Group PLC, UK

SO Eur. Pat. Appl., 87 pp.

CODEN: EPXXDW

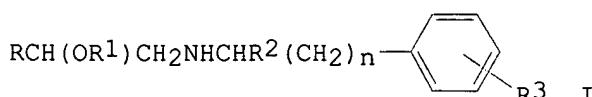
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 99707	A1	19840201	EP 1983-303983	19830708 <--
	EP 99707	B1	19861210		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AU 8316826	A1	19840223	AU 1983-16826	19830714 <--
	AU 557743	B2	19870108		
	ZA 8305126	A	19840627	ZA 1983-5126	19830714 <--
	US 4629737	A	19861216	US 1983-513869	19830714 <--
	CA 1253870	A1	19890509	CA 1983-432465	19830714 <--
	JP 59031740	A2	19840220	JP 1983-128035	19830715 <--
	ES 524174	A1	19841116	ES 1983-524174	19830715 <--
PRAI	GB 1982-20645		19820716 <--		
	GB 1982-28753		19821007 <--		
	GB 1982-35672		19821215 <--		

GI



AB Amines I [R = Ph, alkyl-, halo-, or (trifluoromethyl)phenyl, PhOCH<sub>2</sub>, 2-benzofuryl; R<sub>1</sub> = alkyl, phenylalkyl; R<sub>2</sub> = H, Me; n = 1, 2; R<sub>3</sub> = CO<sub>2</sub>H, carboxyalkyl, carboxyalkenyl, hydroxyalkyl, hydroxyalkenyl, aminoalkyl, aminoalkenyl, alkoxy, alkylthio, alkylamino, hydroxyalkoxy, hydroxyalkylthio, hydroxyalkylamino, aminoalkoxy, aminoalkylthio, aminoalkylamino, Z<sub>1</sub>CO<sub>2</sub>H (Z = O, S, NH; Z<sub>1</sub> = alkylene, alkenylene)] were prep'd., and they exhibited antidiabetic activity. A mixt. of 4-(MeCOCH<sub>2</sub>)C<sub>6</sub>H<sub>4</sub>OCH<sub>2</sub>CO<sub>2</sub>Me and 3-ClC<sub>6</sub>H<sub>4</sub>CH(OMe)CH<sub>2</sub>NH<sub>2</sub> in PhMe was refluxed 2 h, and the mixt. was treated with Pt and H<sub>2</sub> to give I (R = 3-ClC<sub>6</sub>H<sub>4</sub>, R<sub>1</sub> = R<sub>2</sub> = Me, n = 1, R<sub>3</sub> = 4-OCH<sub>2</sub>CO<sub>2</sub>Me). Some I also showed antiinflammatory activity and inhibited blood platelet aggregation.

IT 90469-95-7P 90469-96-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and amidation of, by methylamine)

IT 90469-90-2P 90469-91-3P 90469-93-5P

90469-94-6P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

L119 ANSWER 4 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1983:594608 HCPLUS

DN 99:194608

TI Secondary phenylethanol amines and their pharmaceutical application

IN Hindley, Richard Mark

PA Beecham Group PLC, UK

SO Eur. Pat. Appl., 109 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 70133	A2	19830119	EP 1982-303507	19820705 <--
	EP 70133	A3	19830518		
	EP 70133	B1	19860514		
	R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AU 8285790	A1	19830120	AU 1982-85790	19820709 <--
	AU 553070	B2	19860703		
	ZA 8204903	A	19830427	ZA 1982-4903	19820709 <--
	JP 58018339	A2	19830202	JP 1982-121097	19820712 <--
	ES 513967	A1	19830801	ES 1982-513967	19820712 <--
	ES 520690	A1	19840501	ES 1983-520690	19830316 <--
	ES 520691	A1	19840501	ES 1983-520691	19830316 <--
PRAI	GB 1981-21442		19810711 <--		
	GB 1981-39024		19811230 <--		
AB	HOCHRCH <sub>2</sub> NHCR <sub>1</sub> R <sub>2</sub> (CH <sub>2</sub> ) <sub>n</sub> R <sub>3</sub> [I; R = (un)substituted Ph, 2-benzofuryl; R <sub>1</sub> , R <sub>2</sub> = H, Me; R <sub>3</sub> = substituted alkoxyphenyl; n = 1, 2] were prep'd. Thus, 3,2-ClFC <sub>6</sub> H <sub>3</sub> CH(OH)CH <sub>2</sub> NH <sub>2</sub> was condensed with 4-(MeNHCH <sub>2</sub> CH <sub>2</sub> O)C <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> COMe to give an enamine which was hydrogenated to give diastereoisomeric 3,2-ClFC <sub>6</sub> H <sub>3</sub> CH(OH)CH <sub>2</sub> NHCHMeCH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> (OCH <sub>2</sub> CH <sub>2</sub> NHMe)-4.2HCl (II). In mice, 1 .mu.mol II/kg orally reduced blood glucose 64%, and 25.3 mg II/kg orally increased energy expenditure 48% and reduced food intake 21%.				
IT	86608-15-3P 86608-16-4P				
	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and antidiabetic and antiobesity activity of)				

L119 ANSWER 5 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1983:215308 HCPLUS

DN 98:215308

TI Secondary amines

IN Smith, David Glynn

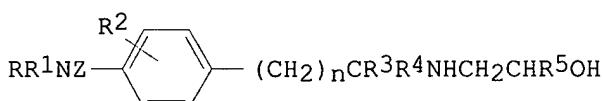
PA Beecham Group PLC, UK  
 SO Eur. Pat. Appl., 89 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 61907	A1	19821006	EP 1982-301594	19820326 <--
	EP 61907	B1	19840801		
	R: BE, CH, DE, FR, GB, IT, NL, SE				
	AU 8282123	A1	19821007	AU 1982-82123	19820329 <--
	ZA 8202124	A	19830126	ZA 1982-2124	19820329 <--
	JP 57176934	A2	19821030	JP 1982-52194	19820330 <--
	ES 510982	A1	19830501	ES 1982-510982	19820330 <--
	ES 518978	A1	19840301	ES 1983-518978	19830113 <--
PRAI	GB 1981-10036		19810331 <--		
	GB 1981-39023		19811230 <--		

GI



AB Ethanolamines I [R, R1 = H, alkyl, (un)substituted PhCH2; R2 = H, halogen, alkoxy, alkyl, NR6R7; R3, R4 = H, Me; R5 = (un)substituted Ph, 2-benzofuranyl; R6 = H, alkyl; R7 = alkyl; Z = alkylene; n = 1,2] were prep'd. Thus, 4.11 g HOCHPhCH2NH2 was treated with 4.77 g 4-NCC6H4CH2COMe and the resulting enamine reduced with NaBH4 and then with LiAlH4 to give 3.8 g I (R, R2, R3, R5 = H, R1 = R4 = Me, Z = CH2, n = 1). I are active as appetite depressants at 6.3-12.2 mg/kg, hypoglycemics (2.5-100 mg/kg), inflammation inhibitors, and are >60 times as effective as aspirin in inhibiting blood platelet aggregation.

IT 85064-67-1P 85070-73-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and antiobesity activity of)

IT 85114-96-1P 85114-97-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and reaction with methylamine)

IT 85064-68-2P 85070-97-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and redn. of)

L119 ANSWER 6 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1982:544754 HCPLUS

DN 97:144754

TI Secondary amines

IN Ferris, Michael John

PA Beecham Group Ltd., UK

SO Brit. UK Pat. Appl., 14 pp.

CODEN: BAXXDU

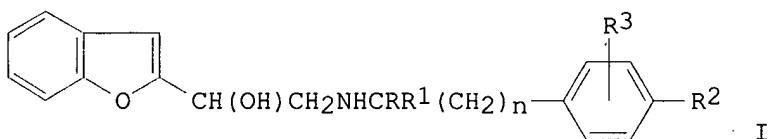
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2084577	A	19820415	GB 1981-28824	19810923 <--

GB 2084577	B2	19840502		
CA 1175851	A1	19841009	CA 1981-385953	19810915 <--
ZA 8106567	A	19820929	ZA 1981-6567	19810922 <--
AU 8175603	A1	19820401	AU 1981-75603	19810923 <--
AU 546104	B2	19850815		
EP 51917	A1	19820519	EP 1981-304398	19810923 <--
EP 51917	B1	19860219		
R: BE, CH, DE, FR, IT, NL				
US 4432993	A	19840221	US 1981-305117	19810924 <--
JP 57085383	A2	19820528	JP 1981-151924	19810925 <--
ES 505801	A1	19830201	ES 1981-505801	19810925 <--
PRAI GB 1980-31228		19800926	<--	
OS CASREACT 97:144754				
GI				



AB Benzofurylethanolamines I [R, R1 = H, Me; R2 = OH, (un)substituted alkoxy, alkyl; R3 = H, OH, halogen, alkyl, alkoxy; n = 1-3] were prepd. Thus 2-formylbenzofuran was treated with Me3SiCN and reduced with LiAlH4 to give 2-(2-benzofuryl)-2-hydroxyethylamine which was treated with 4-MeC6H4CH2COMe and hydrogenated to give I (R = Me, R1 = R3 = H, R2 = Me, n = 1, II) as a mixt. of diastereoisomers. II had antiobesity activity with only a slight effect on heart rate. Other I had antidiabetic, antiinflammatory, and platelet aggregation-inhibiting activity.

IT 83123-40-4 83123-48-2

RL: RCT (Reactant)  
(hydrogenation of)

IT 83123-24-4P 83123-29-9P 83123-30-2P

83123-31-3P 83123-32-4P 83123-35-7P

83123-41-5P 83123-42-6P 83123-43-7P

83123-44-8P 83123-45-9P 83123-46-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. and antiobesity and antidiabetic activity of)

IT 83123-24-4P 83123-25-5P 83123-26-6P

83123-27-7P 83123-28-8P 83123-29-9P

83123-36-8P 83123-37-9P 83123-38-0P

83123-39-1P 83123-47-1P 83140-92-5P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. and pharmacol. activity of)

L119 ANSWER 7 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1981:568976 HCPLUS

DN 95:168976

TI Secondary ethanol amines, their use in pharmaceutical compositions and intermediates for them

IN Ferris, Michael John

PA Beecham Group Ltd., UK

SO Eur. Pat. Appl., 43 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

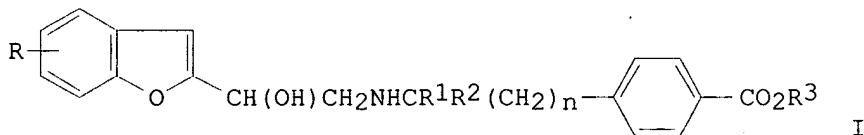
PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI	EP 29320	A2	19810527	EP 1980-303931	19801105
	EP 29320	A3	19810805		
	EP 29320	B1	19850710		
	R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
	AT 14222	E	19850715	AT 1980-303931	19801105
	US 4341793	A	19820727	US 1980-204846	19801107
	DK 8004891	A	19810516	DK 1980-4891	19801114
	JP 56083484	A2	19810708	JP 1980-160639	19801114
	ZA 8007078	A	19811028	ZA 1980-7078	19801114
	ES 496880	A1	19820216	ES 1980-496880	19801114
	CA 1161053	A1	19840124	CA 1980-364738	19801114
	AU 540343	B2	19841115	AU 1980-64354	19801118
	AU 8064354	A1	19810521		
	ES 507410	A1	19820901	ES 1981-507410	19811124
PRAI	GB 1979-39536		19791115		
	EP 1980-303931		19801105		

GI



AB Benzofuranethanolamines I (R = H, Cl, Br, OH, OMe, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>; R<sub>1</sub>, R<sub>2</sub> = H, Me; R<sub>3</sub> = H, alkyl; n = 1-3) were prep'd. Thus, 4-MeO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>CHMeNH<sub>2</sub> was treated with 2-benzofuranyl glyoxal, followed by NaBH<sub>4</sub> redn. to give I (R = R<sub>1</sub> = H, R<sub>2</sub> = R<sub>3</sub> = Me, n = 1) as a 4:1 mixt. of diastereoisomers. The isomers gave 27.4 and 46.4% redn. in blood glucose, resp., at 1.0 and 17.7 mg/kg, resp., orally in mice.

IT 79361-97-0P 79362-71-3P 79362-73-5P  
 79362-74-6P 79362-76-8P 79362-77-9P  
 79362-78-0P 79362-80-4P 79362-81-5P  
 79362-82-6P 79362-89-3P 79362-90-6P  
 79390-97-9P 79390-98-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. and antidiabetic activity of)

L119 ANSWER 8 OF 9 HCPLUS COPYRIGHT 2002 ACS

AN 1966:104078 HCPLUS

DN 64:104078

OREF 64:19560g-h,19561a

TI Benzofuran derivatives

PA Societe Belge de l'Azote et des Produits Chimiques du Marly, S.A.

SO 9 pp.

DT Patent

LA Unavailable

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI NL 65006415		19651122	NL	

PRAI GB 19640520

GI For diagram(s), see printed CA Issue.

AB The title compds. were prep'd. through reaction of I (R = halogen) with an amine. Thus, 30 g. 2-(.omega.-bromoacetyl)benzofuran (II) was suspended in 750 ml. MeOH and cooled to 0.degree., 9.1 g. NaBH<sub>4</sub> added at 10-20.degree., and the mixt. stirred 1 hr. at room temp. to give

1-(2-benzofuryl)-1-hydroxy-2-bromoethane. The Cl analog of II gave I (R = Cl) (III). III (16 g.) and 17.5 g. iso-PrNH<sub>2</sub> in 84 ml. EtOH was refluxed 24 hrs. to give 9.2 g. I (R = isopropylamino), m. 108-9.degree.. Similarly prep'd. were the following I (R and m.p. given): ethylamino, 108.degree.; phenethylamino, 99-100.degree.; allylamino, 92.degree.; cyclohexylamino, 106.degree.; .beta.-[(3,4-methylenedioxyphenyl)ethylamino], -- (HCl salt m. 184.degree.); .alpha.-methylphenethylamino, -- (HCl salt m. 145.degree.); 1-methyl-3-phenyl-propylamino, -- (HCl salt m. 171.degree.); 3-phenylpropylamino, 110.degree.; butylamino, -- (HCl salt m. 172.3.degree.); tert-butylamino, 133.degree.; phenoxyethylamino, -- (HCl salt m. 202.degree.). The products depress the cardiac contraction provoked by noradrenaline or aleudrine.

IT 5536-81-2, 2-Benzofuranmethanol, .alpha.-[(2-phenoxyethyl)amino]methyl] - 5536-82-3, 2-Benzofuranmethanol, .alpha.-[(2-phenoxyethyl)amino]methyl], hydrochloride 5536-84-5, 2-Benzofuranmethanol, .alpha.-[(3-phenylpropyl)amino]methyl] - 5536-85-6, 2-Benzofuranmethanol, .alpha.-[(1-methyl-3-phenylpropyl)amino]methyl], hydrochloride 5536-86-7, 2-Benzofuranmethanol, .alpha.-[(alpha.-methylphenethyl)amino]methyl], hydrochloride 5536-89-0, 2-Benzofuranmethanol, .alpha.-[(phenethylamino)methyl] - (prepn. of)

L119 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2002 ACS

AN 1966:93335 HCAPLUS

DN 64:93335

OREF 64:17543a-c

TI 2-(2-Amino-1-hydroxyethyl)benzofurans

PA Societe Belge de l'Azote et des Produits Chimiques du Marly, S.A.

SO 12 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BE 663926		19651116	BE	19650514
GI	For diagram(s), see printed CA Issue.				
AB	Compds. of the general formula I are prep'd. and can be used as hypotensive agents. Thus, 30 g. 2-bromoacetylbenzofuran in 750 ml. MeOH is treated overnight with 9.1 g. NaBH <sub>4</sub> to give 76% 1-(2-benzofuryl)-1-hydroxy-2-bromoethane. Similarly prep'd. is 1-(2-benzofuryl)-1-hydroxy-2-chloroethane (II). A mixt. of 16 g. II, 17.5 g. iso-PrNH <sub>2</sub> , and 84 ml. EtOH is refluxed 24 hrs. to give 61% 1-(2-benzofuryl)-1-hydroxy-2-isopropylaminoethane (III), m. 108-9.degree. (cyclohexane), CH <sub>3</sub> salt m. 155.degree. (MeEtCO-EtOH). Similarly prep'd. are the following I (R, m.p., m.p. HCl salt, and % yield given): Et, 108.degree. (cyclohexane), --, 43.3; PhCH <sub>2</sub> CH <sub>2</sub> , 99-100.degree. (cyclohexane), --, 30.1; allyl, 92.degree. (ligroine), --, 25.7; cyclohexyl, 106.degree. (cyclohexane), --, 17.2; 2-(3,4-methylenedioxyphenyl)ethyl, --, 184.degree. (MeEtCO-EtOH), --; PhCH <sub>2</sub> -CHMe, --, 145.degree., (MeEtCO), 23; PhCH <sub>2</sub> CH <sub>2</sub> CHMe, --, 171.degree. (tetrahydrofuran), --; Ph(CH <sub>2</sub> ) <sub>3</sub> , 110.degree. (cyclohexane), --, 24; Bu, --, 172-3.degree. (EtOH-MeEtCO), 42; tert-Bu, 133.degree. (cyclohexane), --, 21.4; PhOCH <sub>2</sub> CH <sub>2</sub> , --, 202.degree. (EtOH), 37.9. A tablet or pill is prep'd. from 25 ml. III.HCl, 161 ml. lactose, 4 ml. gelatin, 50 ml. potato starch, 1.5 ml. talc, and 2.5 ml. Mg stearate.				

IT 5536-81-2, 2-Benzofuranmethanol, .alpha.-[(2-phenoxyethyl)amino]methyl] - 5536-82-3, 2-Benzofuranmethanol, .alpha.-[(2-phenoxyethyl)amino]methyl], hydrochloride 5536-84-5, 2-Benzofuranmethanol, .alpha.-[(3-phenylpropyl)amino]methyl] - 5536-85-6, 2-Benzofuranmethanol, .alpha.-[(1-methyl-3-phenylpropyl)amino]methyl], hydrochloride 5536-86-7, 2-Benzofuranmethanol, .alpha.-[(alpha.-methylphenethyl)amino]methyl], hydrochloride 5536-89-0, 2-Benzofuranmethanol,

.alpha.-[(phenethylamino)methyl]-  
(prepn. of)

=> fil reg  
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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

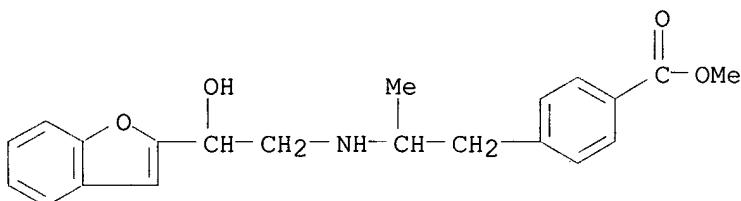
Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

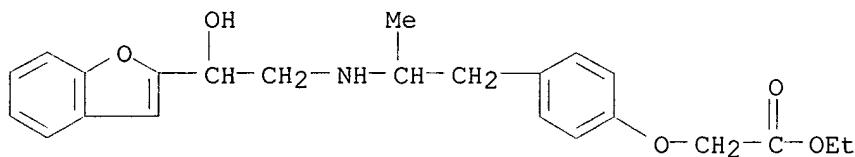
=> d 1111 ide can 1 10 20 30 40 50 60 70 73

L111 ANSWER 1 OF 73 REGISTRY COPYRIGHT 2002 ACS  
RN 345585-05-9 REGISTRY  
CN Benzoic acid, 4-[2-[(2-benzofuranyl)-2-hydroxyethyl]amino]propyl-,  
methyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C21 H23 N O4  
SR CA



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L111 ANSWER 10 OF 73 REGISTRY COPYRIGHT 2002 ACS  
RN 102198-54-9 REGISTRY  
CN Acetic acid, [4-[2-[(2-benzofuranyl)-2-hydroxyethyl]amino]propyl]phenox y]-, ethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C23 H27 N O5  
SR CA  
LC STN Files: CA, CAPLUS

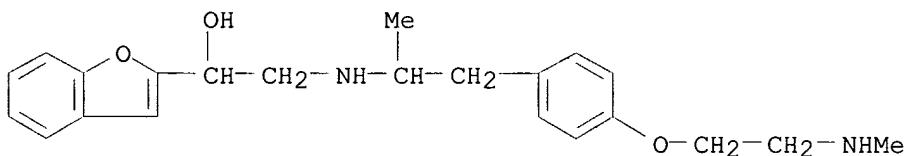


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 104:224720

L111 ANSWER 20 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 86608-16-4 REGISTRY  
 CN 2-Benzofuranmethanol, .alpha.-[[[1-methyl-2-[4-[2-(methylamino)ethoxy]phenyl]ethyl]amino)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)  
 MF C22 H28 N2 O3 . 2 Cl H  
 LC STN Files: CA, CAPLUS  
 CRN (86608-15-3)



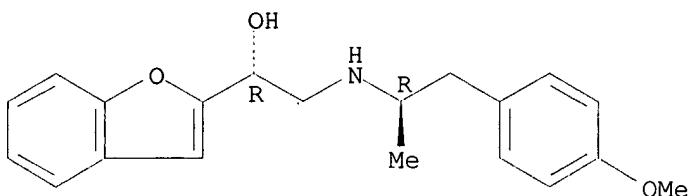
●2 HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 99:194608

L111 ANSWER 30 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 83123-45-9 REGISTRY  
 CN 2-Benzofuranmethanol, .alpha.-[[[2-(4-methoxyphenyl)-1-methylethyl]amino)methyl]-, (R\*,R\*)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 2-Benzofuranmethanol, .alpha.-[[[2-(4-methoxyphenyl)-1-methylethyl]amino)methyl]-, (R\*,R\*)-(-.+-.)-  
 FS STEREOSEARCH  
 MF C20 H23 N O3  
 LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

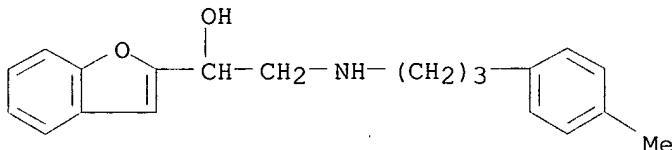


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:144754

L111 ANSWER 40 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 83123-35-7 REGISTRY  
 CN 2-Benzofuranmethanol, .alpha.-[[[3-(4-methylphenyl)propyl]amino]methyl] -  
 (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C20 H23 N O2  
 LC STN Files: CA, CAPLUS, USPATFULL



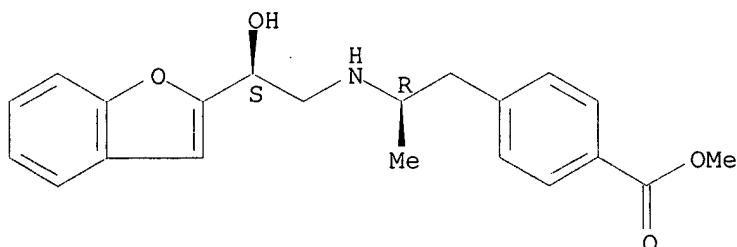
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1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:144754

L111 ANSWER 50 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 79390-98-0 REGISTRY  
 CN Benzoic acid, 4-[2-[(2-benzofuranyl)-2-hydroxyethyl]amino]propyl]-,  
 methyl ester, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C21 H23 N O4  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



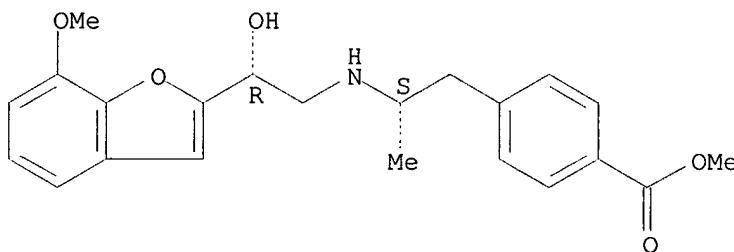
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1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 95:168976

L111 ANSWER 60 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 79362-76-8 REGISTRY  
 CN Benzoic acid, 4-[2-[(2-hydroxy-2-(7-methoxy-2-benzofuranyl)ethyl)amino]propyl]-, methyl ester, (R\*,S\*)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C22 H25 N O5  
 LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

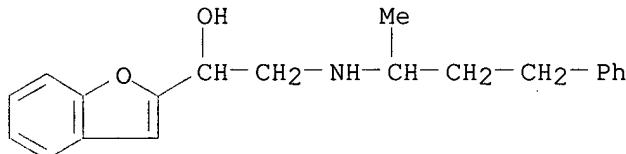


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 95:168976

L111 ANSWER 70 OF 73 REGISTRY COPYRIGHT 2002 ACS  
 RN 5536-85-6 REGISTRY  
 CN 2-Benzofuranmethanol, .alpha.-[(1-methyl-3-phenylpropyl)amino]methyl]-, hydrochloride (7CI, 8CI) (CA INDEX NAME)  
 MF C20 H23 N O2 . Cl H  
 LC STN Files: CA, CAOLD, CAPLUS



HCl

3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 65:56683

REFERENCE 2: 64:104078

REFERENCE 3: 64:93335

L111 ANSWER 73 OF 73 REGISTRY COPYRIGHT 2002 ACS

RN 5536-81-2 REGISTRY

CN 2-Benzofuranmethanol, .alpha.-[[[(2-phenoxyethyl)amino]methyl]- (8CI) (CA INDEX NAME)

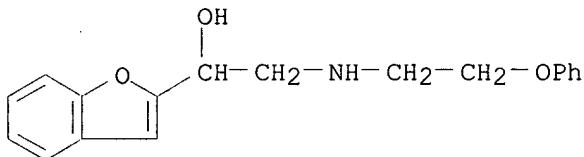
FS 3D CONCORD

MF C18 H19 N O3

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS

(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 64:104078

REFERENCE 2: 64:93335

=&gt; d his

(FILE 'HOME' ENTERED AT 09:12:17 ON 13 OCT 2002)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 09:12:52 ON 13 OCT 2002

E MARUANI J/AU

L1 152 S E3-E5

E SOUBRIE P/AU

L2 215 S E3-E8

E SANOFI/PA,CS

L3 1921 S E2,E3,E4

L4 1921 S SANOFI?/PA,CS

E SYNTHELABO/PA,CS

L5 2057 S SYNTHELAB?/PA,CS

L6 97 S L1,L2 AND L3-L5

E FR97-870/PA,CS

E FR97-870/AP,PRN

L7 1 S E3,E4

E WO98-FR154/AP,PRN

L8 1 S E3,E4

E US6344474/PN

L9 1 S E3

L10 1 S L1-L6 AND L7-L9

SEL RN

FILE 'REGISTRY' ENTERED AT 09:15:36 ON 13 OCT 2002

L11 1 S E1  
 L12 7 S 168273-06-1/CRN  
 L13 STR  
 L14 5 S L13  
 L15 STR L13  
 L16 103 S L15 FUL  
 SAV L16 JKIM44531/A  
 L17 95 S L16 NOT L11,L12

FILE 'HCAOLD' ENTERED AT 09:20:53 ON 13 OCT 2002

L18 0 S L11 OR L12 OR L17

FILE 'HCAPLUS' ENTERED AT 09:20:59 ON 13 OCT 2002

L19 226 S L11 OR L12  
 L20 119 S RIMONABANT OR SR141716 OR SR()(141716 OR 141 716)  
 L21 608 S SR141716# OR SR()(141716# OR 141 716#)  
 L22 618 S L19-L21  
 L23 25 S L17  
 L24 622 S L22,L23  
 L25 58 S L11  
 L26 119 S SR141716 OR SR()(141716 OR 141 716)  
 L27 130 S L25,L26  
 L28 492 S L24 NOT L27  
 L29 362 S L1,L2 NOT L10

FILE 'REGISTRY' ENTERED AT 09:25:08 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 09:25:08 ON 13 OCT 2002

SET SMARTSELECT ON  
 L30 SEL L29 1- RN : 558 TERMS  
 SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 09:25:18 ON 13 OCT 2002

L31 555 S L30  
 L32 1 S L31 AND (46.150.18 AND 591.49.51)/RID  
 E C22H26CLNO4/MF  
 L33 7 S E3 AND (46.150.18 AND 591.49.51)/RID  
 L34 1 S L33 AND 2S  
 L35 1 S L33 AND 2R  
 L36 1 S L34 AND L35  
 SEL RN  
 L37 1 S E1/CRN  
 L38 1 S L32,L37  
 L39 7 S L32-L37 NOT L38  
 SEL RN  
 L40 7 S E3-E8/CRN NOT L38  
 L41 2 S L36,L38  
 L42 13 S L33,L40 NOT L41

FILE 'HCAPLUS' ENTERED AT 09:31:30 ON 13 OCT 2002

L43 59 S L41  
 L44 70 S SR58611 OR SR58611A OR SR()(58611 OR 58611A OR 58 611 OR 58 6  
 L45 78 S L43,L44  
 L46 10 S L42  
 L47 82 S L45,L46  
 L48 44 S L27 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L49 164 S L28 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L50 0 S L48 AND L49  
 L51 170 S L12  
 L52 6 S L28,L51 AND L27  
 L53 4 S L52 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L54 80 S L51 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)

L55 44 S L48, L53  
 L56 44 S L55 AND L1-L10, L19-L29, L48-L55  
 L57 46 S L11(L) (THU OR BAC)/RL  
 L58 146 S (L12 OR L17) (L) (THU OR BAC)/RL  
 L59 24 S L56 AND L57, L58  
 L60 4 S L55 AND 63/SC  
 L61 0 S L55 AND 63/SX  
 L62 36 S L55 AND 1/SC, SX  
 L63 24 S L59, L60  
 L64 16 S L62 NOT L63  
     SEL DN AN 7  
 L65 1 S E9-E11 AND L64  
 L66 25 S L63, L65 AND L1-L10, L19-L29, L48-L65

FILE 'REGISTRY' ENTERED AT 09:39:54 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 09:40:14 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 09:41:29 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 09:42:09 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 09:43:37 ON 13 OCT 2002

L67 39 S L41 (L) (THU OR BAC)/RL  
 L68 9 S L47 AND 63/SC, SX  
 L69 51 S L47 AND 1/SC, SX  
 L70 60 S L47 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L71 44 S L67-L69 AND L70

FILE 'REGISTRY' ENTERED AT 09:45:36 ON 13 OCT 2002

L72 STR  
 L73 2 S L72 SAM  
 L74 STR L72  
 L75 9 S L74  
 L76 STR L74  
 L77 3 S L76  
 L78 STR L76  
 L79 0 S L78  
 L80 STR L74  
 L81 7 S L80  
 L82 SCR 2043 OR 2127  
 L83 7 S L80 NOT L82  
 L84 3 S L78 NOT L82  
     SAV L78 JKIM44531A/Q  
 L85 STR  
 L86 18 S L85  
 L87 375 S L85 FUL  
     SAV L87 JKIM44531B/A  
 L88 STR L85  
 L89 10 S L88 SAM SUB=L87  
 L90 237 S L88 FUL SUB=L87  
     SAV L90 JKIM44531C/A  
 L91 138 S L87 NOT L90  
 L92 57 S L91 AND C6-C6/ES AND 46.150.18/RID  
 L93 76 S L88 CSS FUL SUB=L90  
     SAV L93 JKIM44531D/A  
 L94 161 S L90 NOT L93  
 L95 61 S L93 NOT L41, L42

FILE 'HCAPLUS' ENTERED AT 10:12:57 ON 13 OCT 2002

L96 18 S L95  
 L97 18 S L96 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L98 13 S L97 AND L71

L99 49 S L71,L97,L98

FILE 'REGISTRY' ENTERED AT 10:14:11 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 10:14:26 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 10:14:49 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 10:15:56 ON 13 OCT 2002

L100 STR L78

L101 3 S L100

L102 75 S L100 FUL

L103 SAV L102 JKIM44531E/A

L104 STR L100

L105 17 S L103

L106 4534 S L103 FUL

L107 SAV L105 JKIM44531F/A

L108 STR L103

L109 4607 S L102 OR L105

L110 50 S L106 CSS SAM SUB=L107

L111 2224 S L106 CSS FUL SUB=L107

L112 SAV L109 JKIM44531G/A

L113 2 S L102 AND L109

L114 73 S L102 NOT L110

FILE 'HCAPLUS' ENTERED AT 10:35:48 ON 13 OCT 2002

L115 10 S L111

L116 10 S L112 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)

L117 5 S L113 AND (1 OR 63)/SC,SX

L118 3 S L111 (L) (THU OR BAC)/RL

L119 6 S L114,L115

L120 4 S L112 NOT L116

L121 SEL DN AN 2

L122 3 S L117 NOT E12-E14

L123 9 S L116,L118

FILE 'REGISTRY' ENTERED AT 10:39:26 ON 13 OCT 2002

L124 2222 S L109 NOT L110

L125 2312 S L105 NOT L120

FILE 'HCAPLUS' ENTERED AT 10:40:08 ON 13 OCT 2002

L126 508 S L120

L127 2818 S L121

L128 78 S L120(L)THU/RL

L129 666 S L121 (L) THU/RL

L130 324 S L122,L123 AND 63/SC

L131 505 S L124-L126 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)

L132 1213 S BETA 3 (L) ADRENOCEPTOR

L133 886 S BETA 3 (L) ADRENERGIC (L) RECEPTOR

L134 24 S L127 AND L128,L129

FILE 'REGISTRY' ENTERED AT 10:42:57 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 10:43:18 ON 13 OCT 2002

L135 9 S L119 NOT L130

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DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

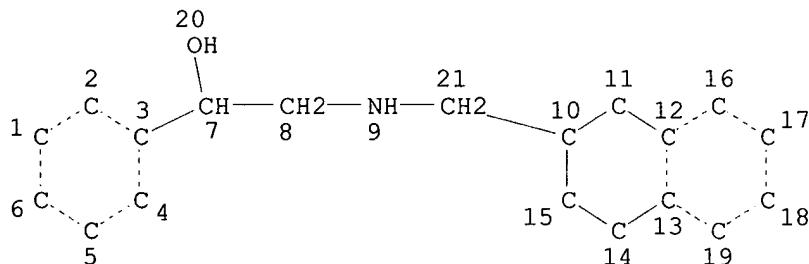
TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sta que 119  
L6 STR

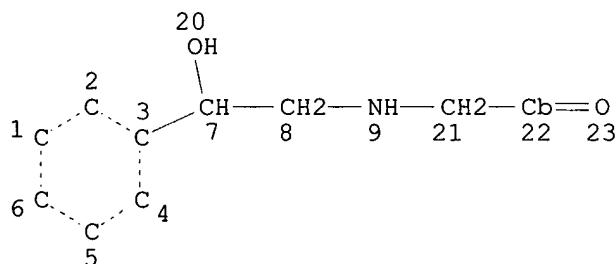


Structure for  
Formula V

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC 10  
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE  
L8 240 SEA FILE=REGISTRY SSS FUL L6  
L16 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM

GGCAT IS PCY AT 22  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE  
 L18 196 SEA FILE=REGISTRY SUB=L8 SSS FUL L16  
 L19 44 SEA FILE=REGISTRY ABB=ON PLU=ON L8 NOT L18

=> d his 119-

(FILE 'REGISTRY' ENTERED AT 11:04:08 ON 13 OCT 2002)  
 SAV L18 JKIM4453II/A  
 L19 44 S L8 NOT L18

FILE 'HCAPLUS' ENTERED AT 11:06:29 ON 13 OCT 2002  
 L20 11 S L19  
 L21 7 S L20 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L22 10 S L19 (L) (THU OR BAC)/RL  
 L23 10 S L20 AND (1 OR 63)/SC, SX  
 L24 7 S L21 AND L22, L23

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=> fil hcaplus  
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 FILE LAST UPDATED: 11 Oct 2002 (20021011/ED)

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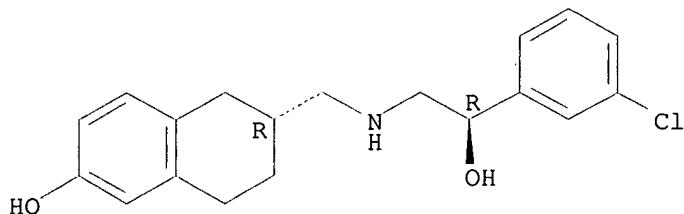
CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d 124 bib abs hitrn fhitstr retable tot

L24 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1998:546795 HCAPLUS  
 DN 129:254774  
 TI In vitro inhibition of human colonic motility with SR 59119A and SR 59104A: evidence of a .beta.3-adrenoceptor-mediated effect  
 AU Bardou, Marc; Dousset, Bertrand; Deneux-Tharaux, Catherine; Smadja,

Claude; Naline, Emmanuel; Chaput, Jean-Claude; Naveau, Sylvie; Manara, Luciano; Croci, Tiziano; Avenier, Charles  
 CS Departement de Pharmacologie, Faculte de Medecine Paris-Ouest, Paris, F-75270, Fr.  
 SO European Journal of Pharmacology (1998), 353(2/3), 281-287  
 CODEN: EJPRAZ; ISSN: 0014-2999  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB The new  $\beta$ .3-adrenoceptor is present in the gastrointestinal tract of various species. This study aimed to show that this receptor modulates human colonic motility in vitro. The authors used circular muscle strips from the human colon suspended in single organ baths contg. Krebs soln. and subjected to an initial 1.5-2 g tension. The authors measured the effects of different  $\beta$ .3-adrenoceptor agonists, including SR 59104A (N-[(6-hydroxy-1,2,3,4-tetrahydronaphthalen-(2R)-2-yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine hydrochloride), SR 59119A (N-[(7-methoxy-1,2,3,4-tetrahydronaphthalen-(2R)-2-yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine hydrochloride), BRL 37344 [(R,R + S,S) [4-[2-[2-(3-chlorophenyl)-2-hydroxyethyl]-amino]propyl]phenoxy]acetic acid], and of isoprenaline and salbutamol in the absence or in the presence of propranolol alone or in combination with the  $\beta$ .3-adrenoceptor antagonist SR 59230A (3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydro-naphthalen-1-ylamino]-(2S)-2-propanol oxalate) on amplitude of spontaneous contractions. To evaluate a possible  $\beta$ .2-adrenoceptor-mediated effect, the authors studied the action of these compds. on human isolated bronchi. On the human isolated colon, SR 59119A, SR 59104A and isoprenaline reduced the initial amplitude of spontaneous contractions by 60%. The curves obtained in the presence of antagonists suggested an action mediated by  $\beta$ .3-adrenoceptor stimulation, since propranolol did not antagonize the action of SR 59119A and SR 59104A, whereas the combination of propranolol and SR 59230A significantly displaced the concn.-response curve of these agonists to the right. This study provides pharmacol. evidence of modulation of human colonic motility, and esp. of the amplitude of spontaneous contractions, by the atypical 3-adrenoceptor, the  $\beta$ .3-adrenoceptor.  
 IT 136758-90-2, SR 59104A 136758-99-1, (SR 59119A)  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (in vitro inhibition of human colonic motility with SR 59119A and SR 59104A and evidence of a  $\beta$ .3-adrenoceptor-mediated effect)  
 IT 136758-90-2, SR 59104A  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (in vitro inhibition of human colonic motility with SR 59119A and SR 59104A and evidence of a  $\beta$ .3-adrenoceptor-mediated effect)  
 RN 136758-90-2 HCAPLUS  
 CN 2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L24 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1998:509094 HCAPLUS  
 DN 129:144879  
 TI Use of agonists of beta-3 adrenergic receptors for preparing wound-healing medicines  
 IN Bernat, Andre; Herbert, Jean-Marc; Arnone, Michele  
 PA Sanofi, Fr.  
 SO PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 FAN.CNT 1

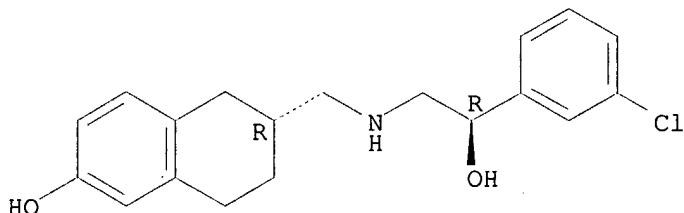
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9831357	A1	19980723	WO 1998-FR105	19980121 <--
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	FR 2758460	A1	19980724	FR 1997-584	19970121 <--
	FR 2758460	B1	19991231		
	ZA 9800484	A	19980730	ZA 1998-484	19980121 <--
	AU 9859941	A1	19980807	AU 1998-59941	19980121 <--
	EP 966276	A1	19991229	EP 1998-903099	19980121 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9807288	A	20000321	BR 1998-7288	19980121 <--
	JP 2001508790	T2	20010703	JP 1998-533861	19980121 <--
	US 6235793	B1	20010522	US 1999-341656	19990715 <--
	NO 9903548	A	19990720	NO 1999-3548	19990720 <--
PRAI	FR 1997-584	A	19970121 <--		
	WO 1998-FR105	W	19980121 <--		
OS	MARPAT 129:144879				
AB	Agonists of beta-3 adrenergic receptors (Markush structure given) are used for prepg. wound-healing medicines (no data).				
IT	210757-90-7 210757-91-8				
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(use of agonists of beta-3 adrenergic receptors for prepg. wound-healing medicines)				
IT	210757-90-7				
	RL: BAC (Biological activity or effector, except adverse); BSU				

(Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of agonists of beta-3 adrenergic receptors for preg. wound-healing medicines)

RN 210757-90-7 HCAPLUS

CN 2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, (6R)- (9CI) (CA INDEX NAME)

## Absolute stereochemistry.



L24 ANSWER 3 OF 7 HCPLUS COPYRIGHT 2002 ACS

AN 1998:306016 HCAPLUS

DN 129:76216

TI Influence of  $\beta$ -adrenoceptor agonists on the pulmonary circulation.  
Effects of a  $\beta_3$ -adrenoceptor antagonist, SR 59230A

AU Dumas, Monique; Dumas, Jean-Paul; Bardou, Marc; Rochette, Luc; Advenier, Charles; Giudicelli, Jean-Francois

CS Laboratoire de Physiopathologie et de Pharmacologie Cardiovasculaires  
Experimentales, Faculte de Medecine, Dijon, 21000, Fr.

SO European Journal of Pharmacology (1998), 348(2/3), 223-228  
CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier Science B.V.

DT Journal

## LA English

AB The aims of this study were (a) to compare in the rat isolated perfused lung prepn., the effects of isoprenaline and of three .beta.3-adrenoceptors agonists, SR 59104A, [N-[(6-hydroxy-1,2,3,4-tetrahydronaphthalen-(2R)-2yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl], SR 59119A [N-[(7-methoxy-1,2,3,4-tetrahydronaphthalen-(2R)-2yl)methyl]-(2R)-2-hydroxy-2-(3-chlorophenyl)ethanamine-HCl] and SR 58611A [ethyl [(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphthalen-2-yloxy]acetate-HCl] on hypoxia-induced pulmonary vasoconstriction, and (b) to investigate the potential existence of atypical .beta.-adrenoceptors in these effects. Propranolol (0.1 .mu.M) was used to antagonize .beta.1- and .beta.2-adrenoceptors whereas SR 59230A, 3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaph-1-ylamino]-(2S)-2-propanol oxalate) (0.3 .mu.M) was used to block .beta.3-adrenoceptors. Isoprenaline and the three .beta.3-adrenoceptors agonists caused concn.-dependent relaxations during the pulmonary pressure response. Propranolol and SR 59230A inhibited the relaxant effects of isoprenaline. SR 59230A but not propranolol inhibited those of SR 59104A. Finally, propranolol and SR 59230A failed to oppose SR 59119A- and SR 58611A-induced relaxant effects. In concns. .gtoreq.1 .mu.M, SR 59230A caused per se a relaxation of the hypoxic vasoconstricted lung. These results suggest the existence of atypical .beta.-adrenoceptors in the rat pulmonary vessels.

IT 136758-90-2, SR 59104A 136758-99-1, SR 59119A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

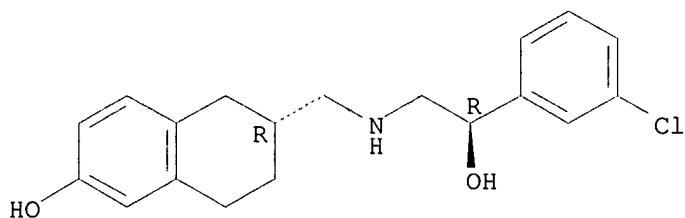
(.beta.-adrenoceptor agonists and .beta.3-adrenoceptor antagonist SR 59230A effect on pulmonary circulation)

IT 136758-90-2, SR 59104A



CN 2-Naphthalenol, 6-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L24 ANSWER 5 OF 7 HCPLUS COPYRIGHT 2002 ACS

AN 1992:530933 HCPLUS

DN 117:130933

TI Preparation of [[[(oxotetrahydronaphthyl)methyl]amino]ethyl]benzenes as antihypertensives

IN McDermed, John Dale; Hurley, Kevin Patrick; Tadepalli, Anjaneyulu Seetharam; Chang, Vincent Huech Tien

PA Wellcome Foundation Ltd., UK

SO PCT Int. Appl., 61 pp.

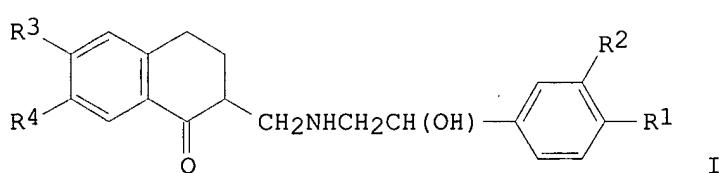
CODEN: PIXXD2

DT Patent

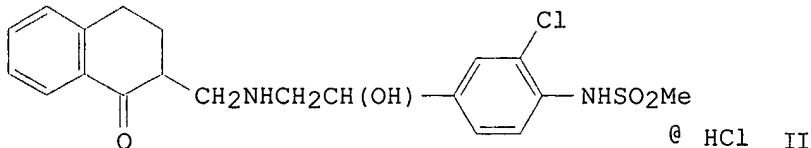
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9205143	A1	19920402	WO 1991-GB1602	19910919 <--
	W: JP, US			RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE	
	EP 549668	A1	19930707	EP 1991-916818	19910919 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 06501250	T2	19940210	JP 1991-515271	19910919 <--
	US 5405872	A	19950411	US 1993-30018	19930322 <--
PRAI	GB 1990-20695		19900922 <--		
	WO 1991-GB1602		19910919 <--		
OS	MARPAT 117:130933				
GI					



I



© HCl II

AB Title compds. [I; R1 = H, OH, alkyl, halo, carbamoyl, aminosulfonyl(amino), etc.; R2 = H, OH, halo, alkoxy carbonyl, aminosulfonyl, alkylsulfonylamino; R3 = H, OH, alkoxy; R4 = H, alkoxy, halo, NO<sub>2</sub>] were prep'd. Thus, 2'-chloro-5'-(1-hydroxy-2-amino)ethyl]methanesulfonanilide hydrochloride (prepn. from 4-chloro-3-nitroacetophenone given) and N-(1,2,3,4-tetrahydro-1-oxo-2-naphthyl)methyl-N,N,N-trimethylammonium iodide (prepn. given) were stirred in MeCN contg. Et<sub>3</sub>N to give title compd. II as a mixt. of 2 pairs of diastereomers. II at 10 mg/kg orally in rats gave a 46/53% redn. in systolic/diastolic blood pressure.

IT 142951-68-6P

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)**

(prepn. of, as antihypertensive)

IT 142951-68-6P

RL: **BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)**

(prepn. of, as antihypertensive)

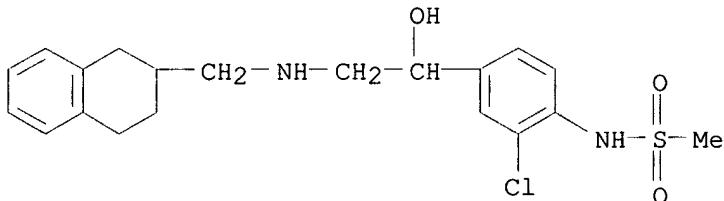
RN 142951-68-6 HCPLUS

CN Methanesulfonamide, N-[2-chloro-4-[1-hydroxy-2-[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]amino]ethyl]phenyl]-, mono(methanesulfonate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 142951-67-5

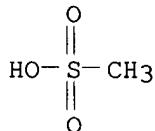
CMF C20 H25 Cl N2 O3 S



CM 2

CRN 75-75-2

CMF C H4 O3 S



L24 ANSWER 6 OF 7 HCPLUS COPYRIGHT 2002 ACS

AN 1991:607684 HCPLUS

DN 115:207684

TI Phenylethanolaminomethyltetralins, their preparation, and pharmaceuticals containing them for treatment of intestinal disorders and glaucoma

IN Cecchi, Roberto; Guzzi, Umberto  
 PA SANOFI, Fr.; Midy S.p.A.  
 SO Eur. Pat. Appl., 45 pp.

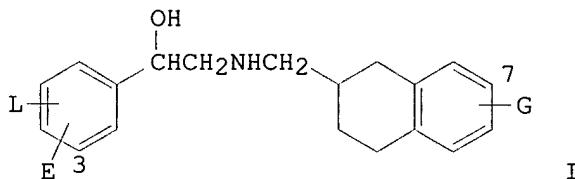
CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 436435	A1	19910710	EP 1990-403762	19901226 <--
	EP 436435	B1	19940323		
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	FR 2656607	A1	19910705	FR 1989-17465	19891229 <--
	FR 2656607	B1	19940311		
	AT 103269	E	19940415	AT 1990-403762	19901226 <--
	ES 2054304	T3	19940801	ES 1990-403762	19901226 <--
	CA 2033243	AA	19910630	CA 1990-2033243	19901227 <--
	CA 2033243	C	19980707		
	JP 04210663	A2	19920731	JP 1990-418873	19901227 <--
	JP 2521191	B2	19960731		
	US 5130339	A	19920714	US 1990-635950	19901228 <--
PRAI	FR 1989-17465		19891229 <--		
	EP 1990-403342		19901126 <--		
	EP 1990-403762		19901226 <--		
OS	MARPAT 115:207684				
GI					



AB Title compds. I [E = H, alkyl, alkoxy, Ph, NO<sub>2</sub>, halo, CF<sub>3</sub>; L = H, alkyl, Ph, alkoxy, NO<sub>2</sub>, halo; or EL = CH:CHCH:CH, (CH<sub>2</sub>)<sub>4</sub>; G = H, Cl, OH, OG', G' = alkyl (optionally substituted by OH, alkoxy, alkoxy carbonyl, CO<sub>2</sub>H, or cycloalkyl), cycloalkyl, alkanoyl] and salts were prep'd. as selective modulators of intestinal motility, and for treatment of ocular hypertension and glaucoma (no data). For example, amidation of 3-chloromandelic acid with 2-(aminomethyl)-7-methoxy-1,2,3,4-tetrahydronaphthalene and redn. of the amide with BH<sub>3</sub>.Me<sub>2</sub>S in THF, followed by acidification, gave I.HCl (E = 3-Cl, L = H, G = 7-OMe) (II). The EC<sub>50</sub> of II for inhibition of spontaneous contraction of isolated rat colon and uterus, resp., were 43 and 2453 nM, vs. 194 and 350 nM for the known analog bearing a 7-OEt group and lacking the naphthylmethyl CH<sub>2</sub> unit. Five formulations, 33 syntheses of I, and 22 precursor syntheses are described.

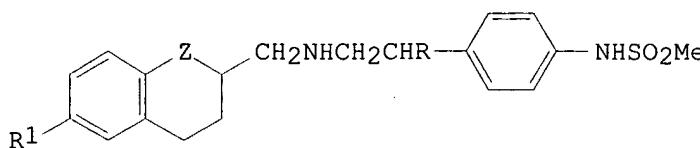
IT 136759-09-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, in prepn. of drugs)

IT 136758-71-9P 136758-72-0P 136758-73-1P  
 136758-74-2P 136758-75-3P 136758-76-4P  
 136758-77-5P 136758-78-6P 136758-79-7P  
 136758-80-0P 136758-81-1P 136758-82-2P  
 136758-83-3P 136758-84-4P 136758-85-5P  
 136758-86-6P 136758-87-7P 136758-88-8P  
 136758-89-9P 136758-90-2P 136758-91-3P



US 5194450	A	19930316	US 1991-783689	19911028 <--
NO 9201905	A	19891023	NO 1992-1905	19920514 <--
PRAI GB 1988-9314		19880420 <--		
EP 1989-303862		19890419 <--		
NO 1989-1609		19890419 <--		
US 1989-340226		19890419 <--		
US 1989-340437		19890419 <--		
US 1990-479181		19900212 <--		
US 1990-577057		19900831 <--		
OS MARPAT 113:126611				
GI				



AB The sulfonanilides I (R = H, OH; R1 = H, alkoxy; Z = CO, CHO, CH2) and I salts are prep'd. as antihypertensives. 2-(4-Methanesulfonamidophenyl)ethyl methanesulfonate was added, at 100.degree., to a soln. of 2-aminomethyl-1,2,3,4-tetrahydronaphthalene and Et3N in DMF, to give I (R = R1 = H, Z = CH2) (II). Oral administration of 10 mg II/kg decreased the blood pressure of spontaneously hypertensive rats. Formulation examples are given.

IT 129280-12-2P

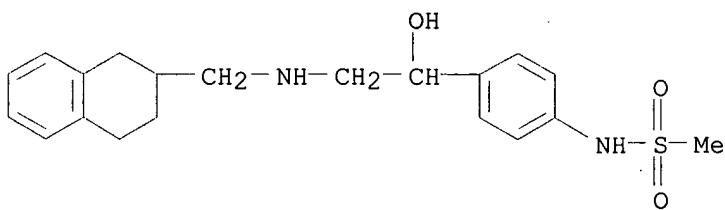
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of, as antihypertensive)

IT 129280-12-2P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of, as antihypertensive)

RN 129280-12-2 HCPLUS

CN Methanesulfonamide, N-[4-[1-hydroxy-2-[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]amino]ethyl]phenyl]- (9CI) (CA INDEX NAME)



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FILE 'REGISTRY' ENTERED AT 11:07:43 ON 13 OCT 2002  
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STRUCTURE FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3  
 DICTIONARY FILE UPDATES: 11 OCT 2002 HIGHEST RN 460983-61-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

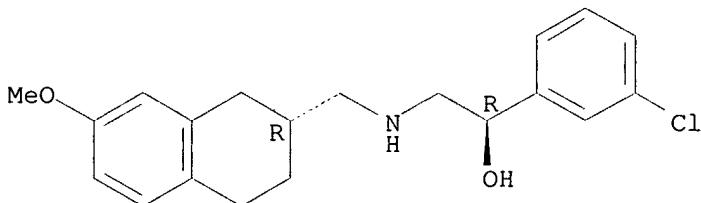
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d ide can 1 4 10 15 20 25 30 35 40 41

L25 ANSWER 1 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 210757-91-8 REGISTRY  
 CN Benzenemethanol, 3-chloro-.alpha.-[[[(2R)-1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl]methyl]amino]methyl]-, (.alpha.R)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C20 H24 Cl N O2  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



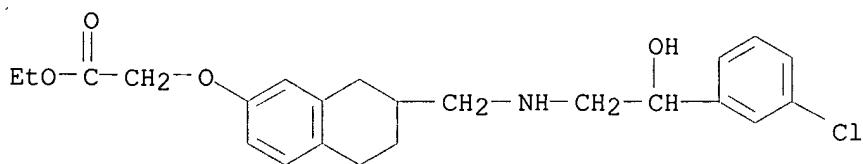
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 132:274338

REFERENCE 2: 129:144879

L25 ANSWER 4 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136759-09-6 REGISTRY  
 CN Acetic acid, [7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C23 H28 Cl N O4  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS



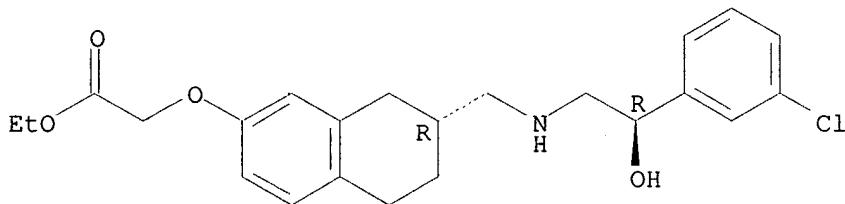
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 10 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136759-03-0 REGISTRY  
 CN Acetic acid, [[7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-, ethyl ester, hydrochloride, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C23 H28 Cl N O4 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

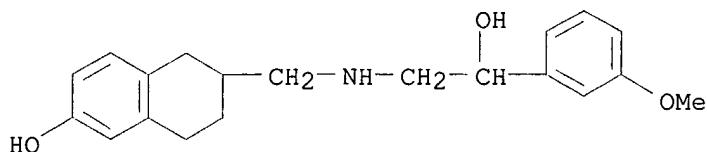


● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 15 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136758-98-0 REGISTRY  
 CN 2-Naphthalenol, 5,6,7,8-tetrahydro-6-[[[2-hydroxy-2-(3-methoxyphenyl)ethyl]amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)  
 MF C20 H25 N O3 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS



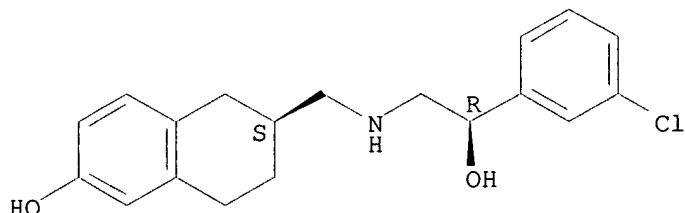
● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 20 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136758-91-3 REGISTRY  
 CN 2-Naphthalenol, 6-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-  
   5,6,7,8-tetrahydro-, hydrochloride, [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C19 H22 Cl N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

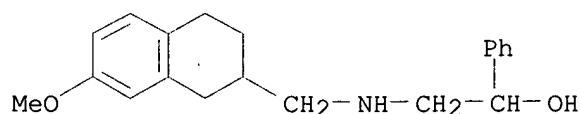


● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 25 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136758-86-6 REGISTRY  
 CN Benzenemethanol, .alpha.-[[[(1,2,3,4-tetrahydro-7-methoxy-2-naphthalenyl)methyl]amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)  
 MF C20 H25 N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS



• HCl

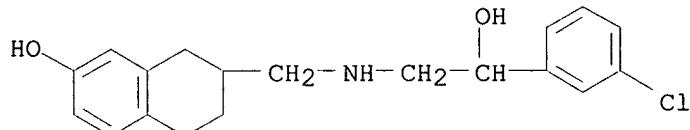
1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 30 OF 41 REGISTRY COPYRIGHT 2002 ACS  
RN 136758-81-1 REGISTRY  
CN 2-Naphthalenol, 7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-  
5,6,7,8-tetrahydro-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)  
MF C19 H22 Cl N O2 . C2 H2 O4  
SR CA  
LC STN Files: CA, CAPLUS

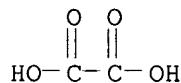
CM 1

CRN 136758-80-0  
CMF C19 H22 Cl N O2



CM 2

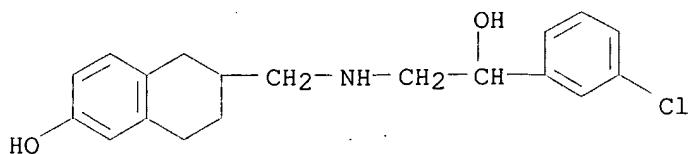
CRN 144-62-7  
CMF C2 H2 O4



1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 35 OF 41 REGISTRY COPYRIGHT 2002 ACS  
RN 136758-76-4 REGISTRY  
CN 2-Naphthalenol, 6-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride (9CI) (CA INDEX NAME)  
MF C19 H22 Cl N O2 . Cl H  
SR CA  
LC STN Files: CA, CAPLUS



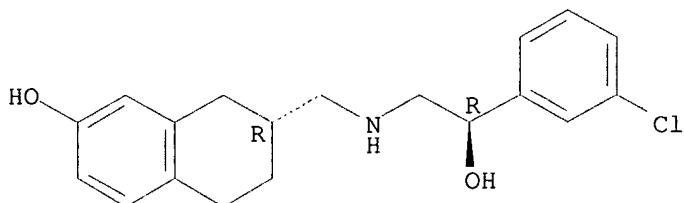
● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 40 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 136758-71-9 REGISTRY  
 CN 2-Naphthalenol, 7-[[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]methyl]-5,6,7,8-tetrahydro-, hydrochloride, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C19 H22 Cl N O2 . Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS  
 CRN (136759-07-4)

Absolute stereochemistry.

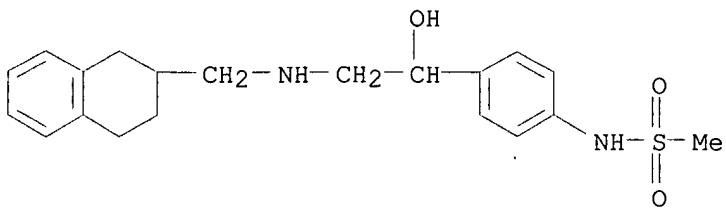


● HCl

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 115:207684

L25 ANSWER 41 OF 41 REGISTRY COPYRIGHT 2002 ACS  
 RN 129280-12-2 REGISTRY  
 CN Methanesulfonamide, N-[4-[1-hydroxy-2-[(1,2,3,4-tetrahydro-2-naphthalenyl)methyl]amino]ethyl]phenyl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C20 H26 N2 O3 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:126611

=> d his

(FILE 'HOME' ENTERED AT 10:59:10 ON 13 OCT 2002)  
 SET COST OFF

FILE 'REGISTRY' ENTERED AT 10:59:42 ON 13 OCT 2002  
 ACT JKIM44531D/A

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 L1 STR  
 L2 ( 375)SEA FILE=REGISTRY SSS FUL L1  
 L3 STR  
 L4 ( 237)SEA FILE=REGISTRY SUB=L2 SSS FUL L3  
 L5 76 SEA FILE=REGISTRY SUB=L4 CSS FUL L3  
 -----  
 L6 STR L1  
 L7 12 S L6  
 L8 240 S L6 FUL  
 SAV L8 JKIM44531H/A

FILE 'HCAPLUS' ENTERED AT 11:01:38 ON 13 OCT 2002

L9 16 S L8  
 L10 12 S L8 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L11 11 S L8 (L) (THU OR BAC)/RL  
 L12 11 S L10 AND (63 OR 1)/SC, SX  
 L13 15 S L11, L12  
 L14 11 S L10 AND L13  
 L15 1 S L10 NOT L14

FILE 'REGISTRY' ENTERED AT 11:03:30 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 11:03:37 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 11:04:08 ON 13 OCT 2002

L16 STR L6  
 L17 11 S L16 SAM SUB=L8  
 L18 196 S L16 FUL SUB=L8  
 SAV L18 JKIM44531I/A  
 L19 44 S L8 NOT L18

FILE 'HCAPLUS' ENTERED AT 11:06:29 ON 13 OCT 2002

L20 11 S L19  
 L21 7 S L20 AND (PD<=19980128 OR PRD<=19980128 OR AD<=19980128)  
 L22 10 S L19 (L) (THU OR BAC)/RL  
 L23 10 S L20 AND (1 OR 63)/SC, SX

L24 7 S L21 AND L22, L23

FILE 'REGISTRY' ENTERED AT 11:07:24 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 11:07:32 ON 13 OCT 2002

FILE 'REGISTRY' ENTERED AT 11:07:43 ON 13 OCT 2002

FILE 'HCAPLUS' ENTERED AT 11:08:05 ON 13 OCT 2002  
SEL HIT RN L24

L25 FILE 'REGISTRY' ENTERED AT 11:08:08 ON 13 OCT 2002  
41 S E1-E41